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A LOOK AT ENGAGEMENT STRATEGIES THAT PROMOTE PERSISTENCE AND RETENTION OF ENTERING STUDENTS AT THE COMMUNITY COLLEGE OF QATAR

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by

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Dedication

This dissertation is dedicated to my two beautiful children - Yousef and Rana – and to my mother and late father. I owe my gratitude to them for instilling in me the values that have played a big role in my life, especially throughout this difficult but rewarding journey. Thank you for inspiring me to work hard, to be patient and humble, and to strive to be a better person. Words cannot express how much I love you. May peace and blessings of Allah be upon you.

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A LOOK AT ENGAGEMENT STRATEGIES THAT PROMOTE PERSISTENCE AND RETENTION OF ENTERING STUDENTS AT THE COMMUNITY COLLEGE OF QATAR

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According to Tinto (2000a), institutions have fewer retention and persistence problems when their students are not only academically prepared, but are also engaged on campus as well as satisfied with the resources and support provided by the college. A student that has a positive first semester experience is more likely to achieve academic success and re-enroll the following term.

The purpose of this study was to explore the differences in experiences, perceptions, expectations, and engagement levels of entering male versus female students and returning male versus returning female students at the gender-segregated Community College of Qatar during the first three to six weeks at the college. The study also attempted to determine if any student support services such as advising, tutoring, counseling, new student orientation program, and participation in student activities were useful and had any influence in promoting student engagement.

Data were analyzed using descriptive statistics. For entering male and female students survey responses were classified using questions from five Survey of Entering

Student Engagement (SENSE) benchmarks: (1) Engaged Learning (2) Early Connections (3) Clear Academic Plan and Pathway (4) Academic and Social Support Network and (5) Effective Track to College Readiness. While questions from four Community College Survey of Student Engagement (CCSSE) benchmarks: (1) Active and Collaborative Learning (2) Student Effort (3) Support for Learners (4) Student-Faculty Interaction were used for returning male and female students.

One-Sample *t*-tests were run to determine if significant differences in engagement levels existed between the four independent groups for each of the benchmark categories. Cohen's *d* calculations were used to measure the effect size and the standardized differences between the means of the variables. For the purpose of this study, Cohen's *d* effect size of 0.35 or higher was used as the criteria for interpreting statistically significance.

The results of this study revealed entering and returning female students reported statistically higher engagement levels than entering and returning male students in most of the variables indicating that they are more likely to utilize student support services at higher frequencies and have a more positive first semester experience than their counterparts.

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Chapter One: Background of the Study

American community colleges, as open-door institutions, have had a reputable track record of providing quality education to students of diverse academic, ethnic, and socioeconomic backgrounds (Vaughan, 2006). Community colleges have become even more comprehensive, offering a variety of programs and services ranging from academic transfer courses and 2-year workforce programs to serving a large number of non-traditional college students (O'Banion, 1997; Roueche & Baker, 1987). The demand for a community college education is greater today than it has ever been due to the current economic situation. According to the American Association of Community Colleges (2010), 43% of undergraduate students in the United States are enrolled in community and technical colleges.

With a substantial increase in enrollment, research shows that many community college students are falling through the cracks and are not accomplishing their educational goals (Brock & LeBlanc, 2005; Tinto, 1993). Driscoll (2007) points out that more than 25% of students enrolled in community colleges in the fall do not return the following spring. At the same time, over 40% of the students registering for classes in the spring do not transfer to a 4-year college (Driscoll, 2007). Similar studies report almost half of part-time community college student enrollees drop out after one year of enrollment and nearly 20% of students that are enrolled full-time leave after only one year in school (Brock & LeBlanc, 2005).

Colleges try to develop strategies to improve student success. However, they have yet to see significant change. As declared by McClenney (2009),

> No matter how good our colleges are today—and they do contribute mightily to educational access, work-force development, and economic prosperity—they simply are not yet good enough. Our results, particularly when stated in terms of student achievement, are not adequate to serve the pressing needs of individual students, communities, states, and the nation. (para. 3)

This chapter provides an overview of the research problem, questions to be employed, and the methodology used to conduct the study. The purpose of the study and its significance in relation to Qatari students and the Community College of Qatar are also covered in chapter one. Study limitations, assumptions, and a brief summary conclude the chapter.

Statement of the Problem

Despite years of research to determine engagement factors that influence student retention, community colleges are still struggling to find solutions to first semester attrition problems (Smith, 2010). On average, about 50% of entering community college students drop out after their first semester of enrollment (Burgess, 2008; McGlynn, 2008). Smith (2010), states that student attrition is highest during the first six weeks of the semester. The problem is familiar to policy makers and educators in the United States; it appears student retention could be a serious issue for higher education institutions overseas, even in affluent countries.

On September 19, 2010, 304 full-time students began a post-secondary educational journey at the Community College of Qatar (CCQ). Immediately following its successful opening, CCQ admitted additional 150 male and female students in spring

2011 semester. In spite of the differences in culture and economic status, the similarities between Qatari and American community college populations are striking. As with American community colleges, the typical CCQ student is of non-traditional age, predominantly female, first-generation, employed, married, and with limited proficiency in the language of instruction (Choy, 2002; Kuh, 2005; Roueche & Baker, 1987). In addition, most of the students had applied to local universities at some point but failed to meet their admissions standards. Some students currently enrolled at CCQ attended Qatar University but were unsuccessful due to below average academic performance. Judging from past research findings on retention of community college students in the United States, CCQ students may be more likely to experience academic and social challenges, thus impeding their learning process and forcing withdrawal unless the college intervenes early and quickly.

A number of researchers have cited factors contributing to a student's decision to re-enroll the following semester. Factors, which are common in the United States and the State of Qatar, include academic preparation, student motivation, social and academic integration, as well as student study skills (Belcheir, 2004; Byrd & McDonald, 2005; Napoles 2009; Ugo, 2010). Effective retention is influenced by the amount of preparation a student receives prior to entering the college (Bean & Metzner, 1985; National Center for Education Statistics [NCES], 2003). An institution that commits to academically engage its students, as well as to provide adequate support beginning with the first contact at the college, has a greater chance at persisting and achieving positive educational outcomes (Astin, 1985; Kuh, 2001, 2005, 2007; Tinto, 1993). Tinto (2000a)

adds institutions have fewer retention and persistence problems when their entering students are not only academically prepared, but are also satisfied with the resources and support provided by the college. A student that has a positive first semester experience is more likely to achieve academic success and re-enroll the following term.

Purpose of the Study

The purpose of this study was to explore the differences in experiences, perceptions, expectations, and engagement levels of entering and returning community college students at the gender-segregated Community College of Qatar during the first three to six weeks at the college. The study also attempted to determine if any student support services such as advising, tutoring, counseling, new student orientation program, and participation in student activities were useful and had any influence in promoting student engagement. The findings could inform student services personnel of the most effective practices associated with student engagement, retention, and persistence. Consequently, the results could assist institutions in developing and implementing intervention strategies that promote student success at the community college level.

Research Questions

This study centers on the following research questions during the students' first three to six weeks at the college:

1. What are the differences in experiences and engagement levels between male and female students during the first three to six weeks at the college?
2. What are the differences in perceptions and engagem ent levels between male and female students during the first three to six weeks at the college?

3. What are the differences in expectations and engagement levels between male and female students during the first three to six weeks at the college?
4. How useful were the student support services in assisting students to understand the community college model?
5. How useful were the student support services in assisting students to know how to utilize the wide variety of on campus resources and services?
6. How useful were the student support services in assisting students to understand their academic and career pathways?

Significance of Study

According to the Center for Community College Student Engagement (CCSSE) (2010), retention and persistence rates among entering students are very low with less than 34% of entering students graduate with an associate degree. McClenney (2009) points out that,

> Roughly 14% of students who begin studies in a community college do not complete a single credit in their first academic term and at least a quarter of entering fall-term students do not return for the subsequent spring term. (para. 3)

The goal of the study was to look for institutional practices that promote social and academic integration in a new setting–the Community College of Qatar–that is unfamiliar to most community college educators. By examining the differences in male and female student experiences, perceptions, expectations, and engagement levels through their first six weeks into the semester, the study findings can assist CCQ in determining if its support services such as advising, tutoring, counseling, and the new

student orientation program were effective in providing the students with the tools, resources, and strategies that promoted a successful first-semester college experience. In addition, by focusing on the front door of the college experience, the researcher anticipates that the findings will assist community college and university practitioners particularly in the Middle East in establishing support programs that influence positive social and academic integration and which will improve entering student experiences beyond the first term of enrollment.

Definition of Terms

Retention–The term retention refers to students accomplishing their educational goals by remaining enrolled in the institution from one semester to the next (Hagedorn, 2005).

Student Success–The term student success stands for students that successfully complete all the courses and are enrolled in upper-level courses the following semester (Center for Community College Student Engagement, 2010a).

Student Persistence–The term student persistence refers to students' successful completion of all courses in a semester and re-enrollment for the following term until the completion of a program (Hagedorn, 2005).

Engagement Levels–The degree of participation by entering and returning students in on-campus activities such as taking part in student organizations, volunteer activities, etc., or seeking assistance through tutoring, academic advising, and counseling (Survey of Entering Student Engagement, 2010a).

SENSE–This term refers to *Survey of Entering Student Engagement*, a national initiative designed to assist community colleges in promoting entering student success (Survey of Entering Student Engagement, 2010b).

CCSSE–This term refers to Community College of Survey of Student Engagement, a national initiative designed to assist community colleges in promoting student success through the use of various student engagement strategies (Center for Community College Student Engagement, 2010a).

Social Integration–The extent to which students are involved in activities at the college that promote integration within the institution and connection among the students (Tinto, 1975, 1993).

Academic Integration–The extent to which students are actively engaged in activities at the college and with other students that promote on-campus friendships, educational attainment, and student persistence (Pascarella & Terenzini, 1991).

Assumptions

In an effort to promote retention through social and academic integration, all incoming students are required to attend a mandatory new student orientation one week before the beginning of the semester. The purpose of the orientation program is to introduce student support services such as advising, personal and career counseling, transfer credit assistance, student activities, and tutoring to all new students and encourage students to utilize them in the first three to six weeks at the college. To ensure it is following the country's strict social norms and gender-segregation tradition, the Community College of Qatar is not a co-educational institution. Thus, the approximately

20,000 square foot building has partitioned walls to ensure strict gender separation. The orientation sessions had to be segregated by gender with women on one side of the building and men on the opposite side. The sessions were divided according to academic levels. Each day was dedicated for one level. The 3-hour long orientation sessions were conducted by student services personnel in English with the presence of an Arabic translator in each session. The researcher assumed that since the orientation sessions were substantially identical in content and effectiveness, they served as a great tool to introduce students to services provided by the college. The researcher assumed that the students would begin to utilize the services following the orientation sessions. Also, since all of the first semester CCQ students were full-time students, the researcher assumed that they were all not working and had ample time to participate in student and educational related activities that promote social and academic integration at the college.

Limitations

Given that there is limited research about post-secondary students in Qatar, studying an unfamiliar population in a new, an unknown foreign institution might present some challenges for the researcher. Other limitation factors include variables that might influence student engagement such as culture, religion, gender, government bureaucracies, and individual student motivation.

Chapter Summary

By attempting to understand the early experiences of entering and returning community college students, this study examined the impact of the student support services and its effectiveness in achieving its intended outcomes of promoting academic and social integration. Using items from the Survey of Entering Student Engagement (SENSE) and the Community College Survey of Student Engagement (CCSSE), this exploration attempted to investigate the college's ability to provide entering and returning students with adequate tools that promote first semester student success. The tools provided by the college included the new student orientation, advising, transfer credit assistance, career counseling, student activities and tutoring services.

The Survey of Entering Student Engagement (SENSE) and the Community College Survey of Student Engagement (CCSSE) instruments provided the researcher with quantitative data. Data collection using SENSE and CCSSE instruments was accomplished in spring 2011 semester. The findings could help colleges in the Middle East and the United States recognize the challenges and experiences of its male and female students, thus developing engagement and retention strategies that meet the needs of its entering and returning students.

Research on engagement, persistence, and retention of first semester students were carefully reviewed and analyzed in chapter two. The researcher studied and analyzed two theoretical models on student engagement and the effect on retention and persistence. Chapter two includes an extensive research review on the Qatari higher education system and the post-secondary education gender-gap crisis that might affect

the country's national vision. The chapter concludes with a brief summary of the historical development of the Community College of Qatar as the first community college in the Middle East, which, in partnership with Houston Community College, is accredited by the Southern Association of Colleges and Schools (SACS).

Chapter Two: Review of Literature

Student Persistence and Retention: A Call for Action

In spite of the extraordinary surge in student enrollment and demand for a community college education, historically college retention and student persistence have been key success barriers for most institutions (Smith, 2010). Given the magnitude of this problem, a recent study conducted by the American College Testing (2004) to determine what works in student retention revealed that 53% of the 305 community colleges that responded to their survey indicated they had yet to establish retention rate goals for their institutions. Persistence rates of entering community college students from one semester to the next have dropped to precisely 50% (Burgess, 2008). Community colleges need a better understanding of the forces that negatively impact retention and success goals. According to Roueche and Roueche (1999), most community college students enter the first semester of college with limited academic skills. Tinto (2000a) added that institutions could have fewer retention and persistence problems when entering students are academically prepared and satisfied with the resources and support provided by the college. Students who have a better first semester college experience are more likely re-enroll the following term.

A number of studies in the United States explored retention and persistence problems within community colleges and universities; however, limited research has been conducted in the State of Qatar. The lack of research found in Qatar could be because Qatar University was at one point the only higher education institution in the country providing education beyond high school for Qataris and non-Qataris. Thus, the

study will not only make significant contributions to the Community College of Qatar and 2-year institutions in the United States, but to other higher education institutions in Qatar.

Factors that Influence Persistence and Retention

A number of factors including social, academic, personal, and institutional are reported to have influenced persistence and retention at community colleges (Jordan, 2008). According to a recent report by Belcheir (2004), familiar factors influencing students' decisions to withdraw include academic preparation, student motivation, social and academic integration as well as student study skills. Other predictors, unique to non-traditional students as specified by student retention and attrition theorists such as Bean and Metzner (1985), include external factors such as work and family responsibilities. Consequently, many of the non-traditional, older, and married students tend to be less committed to the institution because of the less time spent at the college. Commitment, as defined by Strauss and Volkwein (2004), is the student's willingness to return to the college despite outside obligations. Commitment is acquired when students have pleasant classroom experiences and they are generally satisfied with the college's support services and culture. First-year students find the adjustment from secondary to higher education to be easier and faster. The feeling of commitment to and comfort in the institutional culture are critical to student success and retention, and illustrate the barriers community college students encounter while trying to integrate into the college environment.

Academic preparation. Research suggests post-secondary student success is influenced by the amount of preparation a student receives prior to entering college (National Center for Education Statistics, 2003). A growing body of literature indicates poor academic preparation has created learning barriers for community college students (Jackson, 2010). The task to improve success and retention has been especially challenging for community colleges as their students generally come to college with much lower academic preparation than at 4-year universities.

Historically, the K-12 system in Qatar was shown to be ineffective and produced few high school graduates who are prepared for the university (Stasz et al., 2007). Devoting attention to academic preparation is of great importance today for public schools and post-secondary education institutions in Qatar if the desire is to increase the number of students in higher education. It is imperative that the two types of educational institutions collaborate to formulate policies and intervention strategies to ensure students receive the knowledge, skills, and competencies needed in an economy, which is increasingly reliant on information and technology (Stasz et al., 2007).

Community colleges enroll a large number of working students who are older (Horn, Cataldi, & Sikora, 2005) and separated from education for a longer period. Older community college students are less likely to be academically prepared for college. Consequently, older students are often enrolled in developmental courses (Spellman, 2007). Students enrolled in developmental courses are less likely to persist due to being academically unprepared upon entering college compared to peers that enroll in college level courses (Spellman, 2007).

Student motivation. Another factor affecting first semester student persistence is lack of student motivation. Student motivation is a familiar problem in Qatar especially among Qatari males (Zellman et al., 2009). Researchers have disagreed as to why some students are more motivated than others, particularly in Qatar. Some indicate motivated students acknowledge responsibility for personal academic performance and long-term success. Consequently, students in Qatar spend more time working on assignments and participating in educational activities (Baker, Kanan, & Al-Misnad, 2008). In a study to determine factors contributing to the lack of motivation among Qatari students, it was discovered that unmotivated students with poor study skills came from "affluent families, attended schools whose general atmosphere promoted rewarding and healthy interaction with the teachers, lived in homes that provided culturally enriching materials, and had parents who are involved minimally in their school" (Baker et al., 2008, p. 133). Most Qataris are either affluent or middle class.

In Rossi's 2010 study, *Community College Learner-Centered Teaching Styles and Students' Motivation to Learn*, it is noted "students who are motivated to learn will choose tasks that enhance their learning, will work hard at those tasks, and will persist in the face of difficulty in order to attain their goals" (p. 14). Institutions should also assess instructional methods to see if participation can be encouraged. Studies substantiate the effects of learner-centered teaching in relation to increased student motivation (McCombs & Miller, 2007).

Social and academic integration. Retention studies suggest the likelihood of student departure is less among students with a higher level of commitment to the

institution. A vital condition fostering student commitment to an institution is academic and social integration acquired through active engagement and development of friendships on campus (Tinto, 1975, 1993; Whorton, 2009). Following extensive research on student engagement, Pascarella and Terenzini (1991) observed that,

> The environmental factors that maximize persistence and educational attainment include a peer culture in which students develop close on-campus friendships, participate frequently in college-sponsored activities, and perceive their college to be highly concerned about the individual student, as well as a college emphasis on supportive services. It is worth noting that some of these environmental influences on educational attainment persist even after college size and student body selectivity are taken into account. (p. 604)

In an assessment of social and academic integration through new student orientation programs, O'Banion (1997) states community colleges should spend more time with students during this powerful process so they "could meet the needs of each individual learner" (p. 51). Increased social and academic integration occur in institutions providing memorable experiences for incoming students. New students must get the message the college cares about students' well-being and is committed to help meet academic and social goals. A nurturing and engaging approach influences entering students' attitudes and can later promote retention and success (Tinto, 2000a).

In Holst's 2007 study, *The Relationship between an Intrusive Student Services Model and First Year Retention of Underrepresented At-Risk Students*, it is stated that

> Spady, Bean, Braxton, Astin, and Tinto, concur that regardless of the conditions that pre-exist or various elements of the respective retention models, student departure occurs primarily because of higher education institutions no longer serving students' best interests, not reflecting students' current or evolving goals, students not possessing sufficient commitment to a goal(s), or the perceived absence of commitment from the institution. (p. 27)

First-time college students engaged on campus are most likely to be successful and return the following semester. According to a report by the Center for Community College Student Engagement [CCCSE] (2010b),

> Student learning and student retention are correlated strongly with student engagement. The more actively engaged students are—with college faculty and staff, with other students, with the subject matter being learned—the more likely they are to persist in their college studies and to achieve at higher levels. (para. 1)

Theoretical Framework

Perspectives on persistence and retention.

Tinto's model of student departure and integration. The most widely used theory addressing student retention is Tinto's (1993) model of student departure. Tinto's theory has provided the framework for most studies, particularly at 4-year institutions. In Tinto's (1993) theory, two components are referred to promote integration–academic and social. The most notable component used in the study on developing student support strategies in improving retention is the affirmation stating for students to persist, individuals must incorporate themselves into the social life of the institution. Tinto

suggests social interaction or student involvement on campus, particularly during the first few months at the college, is critical to increasing student persistence and retention, creating connections in and outside the classroom. According to Tinto (2000b),

> The more students are academically and socially involved, the more likely are they to persist and graduate. A wide range of studies in a variety of settings and for a range of students have confirmed that the more frequently students engage with faculty, staff, and their peers, the more likely, other things being equally, that they will persist and graduate. Simply put involvement matters, especially during the first year of college when student membership in the communities of the campus is so tenuous. (p. 3)

Tinto's theory emphasizes the importance of implementing student intervention practices required for group-specific retention programs such as the New Student Orientation. The orientation provides entering students an avenue to develop long-lasting friendships from the first few critical days of the semester. Engagement activities promote social and academic integration and encourage first time college students to participate in other activities contributing to superior learning such as seeking tutoring services, personal and career counseling, as well as academic advising. According to Pascarella, Terenzini, and Wolfe (2006), "the stronger the individual's level of social and academic integration, the greater his or her subsequent commitment to the institution and to the goal of college graduation" (p. 155-156).

Astin's theory of student involvement. Another hypothesis showing significance to this proposed study is Astin's (1984) theory of student involvement. Astin (1984)

points out the student's personal and academic development is directly related to the amount of effort and engagement the student exerts on and off campus. Involvement, according to Astin is "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 297). In other words, students who dedicate their time to studies, while participating in a number of on-campus activities at the same time, are more likely to achieve rich learning experiences. Napoles (2009) adds,

> Students, therefore, increase their own learning and personal development through participation in student organizations, extracurricular activities, frequent faculty interactions, and amount of time spent studying. Students who have high levels of involvement in the college are more likely to persist than students who have no or low levels of involvement. (p. 14)

Bean and Metzner's theory of attrition. Contrary to Tinto's and Astin's models emphasizing the social aspect of integration, Bean and Metzner's (1985) model contends student attrition of nontraditional students is a result of external factors such as work and family obligations. Social integration, Bean and Metzner (1985) argue, plays a small role in 2-year institutions. The conceptual model developed for nontraditional students explains why social integration has little to do with why community college students choose to drop out. Instead, the decision is based on four variables: (a) academic performance as measured by grade point average; (b) intent to leave, which is influenced primarily by psychological outcomes and academic variables; (c) background and defining variables, primarily high school performance and educational goals; and (d) environmental variables, which are expected to have substantial direct effects on dropout

decisions (Bean & Metzner, 1985).

Student engagement assessment tools.

Community College Survey of Student Engagement (CCSSE). Researchers and educators recognize the value and correlation between student engagement and student development (Astin, 1993). Community colleges struggle to evaluate student engagement activities. As a result, in 2001, the Community College Leadership Program at the University of Texas at Austin sponsored a new project called the Community College Survey of Student Engagement (CCSSE). According to the Center for Community College Student Engagement (2010b), since 2002 more than one million students from more than 700 member colleges have successfully participated in the survey. The goal of CCSSE, administered in the spring semester, is to assist community colleges in assessing institutional practices and student behaviors by comparing the results to other benchmarking institutions (Center for Community College Student Engagement, 2010c).

Survey of Entering Student Engagement (SENSE). According to Oriano-Darnell (2008), "national data show that more than 14% of new community college students leave college after their first semester (para. 4)." Greater attention to entering students is needed at community colleges. The first semester retention problem led to the development of the Survey of Entering Student Engagement (SENSE). An initiative of the Community College Survey of Student Engagement (CCSSE), the SENSE instrument, administered during the fourth or fifth week of the fall semester, looks at new students' college experiences before enrolling at the college and through the first

week of classes. Oriano-Darnell (2008) explains, "SENSE data provide colleges with a previously unavailable means for systematically understanding new students' experiences on their campuses, thereby providing a framework for institutions to consider how well their organizational structures are meeting entering students' needs (para. 5)."

Perspectives of Nontraditional Students in Community Colleges

Vaughan (2006) declares the mission of the community college is to provide access to postsecondary educational programs and services leading to stronger, more vital communities. Depending upon the needs and makeup of local communities, individual colleges differ in the way they achieve this mission. Community colleges serve diverse student populations that differ from 4-year institutions (McCabe, 2000). According to Achieving the Dream (2006),

> Community colleges are the point of entry into higher education for many Americans, and they serve particularly high proportions of first-generation college-goers and students of color. They enroll 45% of all undergraduate students, including 47% of all African American students, 55% of all Hispanics and 57% of all Native Americans. They serve large numbers of low-income students and working adults. (p. 5)

A typical nontraditional community college student tends to be a first-generation college student (O'Banion, 1997). According to Coley (2000), 50% of community college students are first-generation, compared to 35% in public universities. Community college students tend to be older, more racially and ethnically diverse, and

working full-time (American Association of Community Colleges, 2010; Coley, 2000; Tatum, 2010). Community colleges have become the institutions of choice for the vast majority of Blacks and Hispanics, with women representing more than half of all community college students (American Association of Community Colleges, 2010; Coley, 2000; Tatum, 2010; Vaughan, 2006). In addition to serving a large number of high school graduates, the average age of a community college student is 29 years old (American Association of Community Colleges, 2010).

A Closer Look at the State of Qatar

The State of Qatar, a small peninsula of approximately 4,430 square miles is located on the Arabian Gulf. Qatar has been experiencing exponential population growth. Less than 10 years ago, about 500,000 people were living in Qatar with less than half being native Qataris. Latest estimates put Qatar's total population at almost 1.67 million of which 76% are males and 24% females (Qatar Information Exchange, n.d.). The U.S. Department of State estimates only 20% of the total population is Qatari. The remaining residents are expatriates from India, the Philippines, Nepal, Pakistan, Sri Lanka and other countries (Gonzalez et al., 2008). The official language of Qatar is Arabic, but due to the significant growth of the emigrant population English is now widely spoken and understood.

The current emir, His Highness Sheikh Hamad bin Khalifa Al Thani, assumed power in 1995 and is the head of the legislative and executive branches of the government. As a result of the country's outstanding and progressive leadership, Qatar has become a global power and one of the highest per capita income countries in the

world (Gonzalez et al., 2008; Zellman et al., 2009). The emir of Qatar and his wife, Her Highness Sheikha Mozah Bint Nasser Al-Missned, are working diligently to transform the country by shifting it from a traditional Arabic society to an intellectual capital capable of meeting the demands of a 21st century economy and global challenges. The government has been gradually promoting gender integration in the workplace as well as at private schools and foreign universities. However gender segregation in public places is still quite common. Qatar University, the largest institute of higher education in Qatar and all public schools are still strictly gender-segregated.

Qatar has experienced remarkable economic growth the last two decades primarily due to its large oil and natural gas reserves (Augustine & Krop, 2008; Gonzalez et al., 2008; Stasz et al., 2007). As the world's second richest country per capita, Qatar has not been affected by the global financial collapse. Qatar is focusing on developing its human capital through education and workforce training to ensure its citizens are engaging and contributing to the social and economic development of the country while reducing dependence on its large foreign workforce (Stasz et al., 2007).

Qatar National Vision 2030. Less than three years ago, the Qatari leadership under the came together to develop a long term vision and plan known as Qatar National Vision 2030. This Vision is to ensure they are prepared for future global challenges despite the enormous wealth they possess. The plan covers every sector and ensures a prosperous future for the country and its children.

The National Vision defines broad future trends and reflects the aspirations, objectives and culture of the Qatari people. By shedding light on the future, the

> Vision illuminates the fundamental choices that are available to Qatari society. Simultaneously, it inspires Qatari people to develop a set of common goals related to their future. Qatar's National Vision defines the long-term outcomes for the country as a whole rather than the processes for reaching these outcomes. It provides a framework within which national strategies and implementation plans can be developed. (Qatar National Vision, 2030, p. 2)

The Vision rests on four pillars that are to hold the country's future and to make it one of the most educated and developed states by 2030. The four pillars (Qatar National Vision 2030) are,

> Human Development: Development of all its people to enable them to sustain a prosperous society.
>
> Social Development: Development of a just and caring society based on high moral standards, and capable of playing a significant role in the global partnership for development.
>
> Economic Development: Development of a competitive and diversified economy capable of meeting the needs of, and securing a high standard of living for, all its people for the present and for the future.
>
> Environmental Development: Management of the environment such that there is harmony between economic growth, social development and environmental protection. (p. 11)

Senior members of the ruling family and the Qatar National Vision 2030 planning committee have already taken quick and necessary steps to implement this

important national plan, such as increasing opportunities and access to education. Eligible Qataris can now enter well-known American universities located in Qatar's Education City.

Education system in Qatar. Education is highly revered by Qataris and is an essential element in the nation's economic, social, and political development. Qatar has aggressively embarked upon educational reforms at all levels. "The goal is to develop human capital of Qatari nationals and to ensure that Qatar's citizens can contribute fully to society, both economically and socially" (Stasz et al., 2007, p. xiii).

In 2001, a new law was enacted providing all Qatari citizens with free and compulsory education (Qatar Information Exchange, n.d.). Similar to the United States' public school system, Qatar's system consists of six years of elementary, three years of middle, and three years of high school. Prior to 2004, the English language was taught starting with the sixth grade and the foundation curriculum was exclusively taught in the Arabic language. As a result of the comprehensive education reform implemented in 2002, English is slowly replacing Arabic as the preferred language of instruction (Brewer et al., 2007; Zellman et al., 2009).

The first schools in Qatar were established prior to the beginning of the oil boom of the late 1940s. In the early days, only young boys were allowed to enter schools and the curriculum was strictly religious in nature. Later, after the Ministry of Education was formed in 1956, girls-only schools were established. Although the Ministry of Education (now Qatar Supreme Education Council) has been in existence for more than five decades, the educational system in Qatar has been struggling to achieve its goals. Many

Qataris lack the necessary skills for post-secondary education and workplace requirements (Zellman et al., 2009). The problem is perceived to begin in the K-12 system resulting in the under preparedness of high school graduates. The Qatar Supreme Education Council, under the new "Principles of Reform" initiative, agreed to replace the old educational system with a new, more engaging and challenging one assisting in the preparation of students entering universities in Qatar and abroad. The newly established independent school system of Qatar, allowed local and international schools to employ programs, choose curriculum, and hire highly qualified teachers to help produce better educational results (Supreme Education Council, 2010b; Zellman et al., 2009). Most experts believe, however, that the educational reforms and new independent schools will take time to achieve the necessary preparation for students to achieve success in post-secondary study or employment ventures (Stasz et al., 2007).

Post-secondary education attainment challenges in Qatar. Another generational challenge facing many students in Qatar is the inability to pursue post-secondary education. Due to unavailability of institutions, a lack of access persists. Qatar University was the only institution of higher education for more than three decades until the emergence of Qatar Foundation in recent years. As the only university in the country, Qatar University has rigid admission conditions preventing many high school graduates from pursuing post-secondary degrees. Each student must demonstrate a high level of English proficiency as well as math and computer competencies prior to being admitted to any of the programs at Qatar University. The entrance requirements are traditionally difficult for Qatari high school graduates, especially Ministry school

graduates whose language of instruction was Arabic.

The previous public school system, as disclosed by Zellman et al. (2009), failed to produce college ready students.

> The nation's leaders were well aware that students who left the nation's Ministry of Education schools were, in general, not prepared to take on the responsibilities of leadership or to participate effectively in Qatar's expanding economy. Few had the academic proficiency or fluency in English or other foreign languages to pursue post-secondary education abroad or in Qatar's new Education City, which houses branch campuses of prestigious foreign universities. (p. 1)

Having options to attend universities at Qatar Education City such as Texas A & M University, Georgetown University, Cornell Medical College, and Virginia Commonwealth University, may have helped provide opportunities for more Qataris. Nonetheless, if the admission requirements to these universities are the same as those at Qatar University, the problem could persist and fewer Qataris will have an opportunity to enter a university.

One important factor contributing to low post-secondary education attainment in Qatar is the vast number of opportunities for employment for Qataris with high school diplomas, particularly in the government sector (Stasz et al., 2007; Zellman et al., 2009). The Qatari government provides its citizens with decent wages as well as living incentives such as housing, transportation, and utility allowances. As a result, many Qataris, particularly the men, become comfortable with employment conditions and are less interested in pursuing post-secondary education (Zellman et al., 2009).

Gender-gap in higher education in Qatar. The gender gap in higher education has become a worldwide phenomenon. In Qatar, women are more educated than men (Augustine & Krop, 2009; Stasz et al., 2007). According to a 2004 report by Qatar's Planning Council, 31% of women have some post-secondary schooling, compared with 27% of men (Stasz et al., 2007). More Qatari women are pursuing post-secondary studies and are academically outperforming their counterparts (Stasz et al., 2007). The trend of Qatari females academically outperforming Qatari males could more accurately reflect the enrollment and retention problem as explained in Tinto's theory of social and academic integration. For Tinto (1975), academic integration occurs when students are academically performing well and are satisfied with the overall progress at the college. Consequently, Qatari women get more involved in college activities as well as develop interpersonal relationships promoting student success while men are more likely to disconnect themselves from the college and depart. Today, Qatari college graduates are highly sought out by employers and earn more than high school graduates. Indeed, such conditions could present challenges in this small and traditional country where culture and religion commands men be the providers for their families.

The development of the community college of Qatar. In an effort to meet the goals of developing a modern, world-class education system, the State of Qatar, under the leadership and support of His Highness Sheikh Hamad Bin Khalifa Al Thani and the vision of Her Highness Sheikha Mozah Bint Nasser Al- Missned, embarked upon a new initiative to import an American model Community College system. Qatar is one of the wealthiest nations in the world due to its large hydrocarbon reserves. Qatar is not only

seeing growth in the economy, the population has increased by one million since 2004 (Leete, 2010). To respond to the country's low post-secondary education attainment, as well as support labor market needs, Qatar's Supreme Education Council approved the creation of the Community College of Qatar (CCQ). CCQ will act as a "midway home for students transitioning from secondary school to college/university" (Alnaimi & Das, n.d. p. 4). The Community College of Qatar's role is to provide Qataris, and eventually non-Qataris, with the skills necessary to complete higher studies or train for a career in one of many local and international industries around the country.

The Supreme Education Council (SEC) is currently the entity responsible for the creation and governance of the Community College of Qatar. The dean of the college, hired by the SEC, serves as the Chief Executive Officer. For quality assurance, and to meet international accrediting and education standards, the SEC entered into a services agreement with Houston Community College to provide accredited certificates, degree programs and courses, credentialed faculty, and staff in the first two years of operation. The Community College of Qatar plans to pursue its own accreditation from the Southern Association of Colleges and Schools (SACS).

Initially, the goal was to create a co-educational institution. However, due to public pressure, a decision was made to offer courses in separate buildings similar to Qatar University. On September 26, 2010, the Community College of Qatar opened its doors with the first 304 full time students at the West Bay Campus. The college serves traditional and non-traditional students. The average age of students is 24 years old, with 64% women and 36% men. Since June 2010 more than 3,000 students, Qataris and non-

Qataris, have applied for admissions. Due to limited space and resources the college only admitted Qatari students who are proficient in English and Math. Students were required to take the COMPASS ESL test for placement purposes. The test allowed the college to test students' abilities in five areas–Math, Listening, Reading, Grammar, and Writing. Each student was required to show his or her Qatari identification card along with the test registration receipt prior to taking the COMPASS ESL test. Students are placed in appropriate courses based on the combined scores in three areas–Reading, Writing and Listening. All other students that scored below the cut-off scores of 120 were advised to attend an English language institute prior to retesting. Only Qatari nationals with satisfactory COMPASS ESL scores were admitted into the college.

The cost of education is fully subsidized by the government for Qatari nationals. Future enrollment plans include non-Qataris paying tuition for their education. The classes are currently in the same building with partitioned walls to preserve the gender segregation. Starting spring 2011, the new campus for women is expected to open and more students will have an opportunity to enroll.

Gender-Gap in Higher Education

Low enrollment and degree attainment challenges. Today the world faces new challenges and greater opportunities as a result of the globalized economy (Qayoumi, 2009). More industries are moving overseas and markets are growing globally (Mihm-Herold, 2010). An education beyond high school has become increasingly essential for people who desire to improve personal economic status. In most countries, education plays a critical role in eliminating poverty and entering the path to upward mobility.

Education is a solution to narrowing the economic gap between the haves and the have-nots. Given the current challenges and opportunities, companies need a highly skilled and educated workforce to compete in a knowledge-based competitive economy (Anderson, 2002; Petrosian, 2010; Roueche, Johnson, & Roueche, 1997; Sum et al., 2003). Access to education is always an important element for community colleges. Remarkably, more than 43% of today's undergraduate students are enrolled in the 1200 community colleges around the country (American Association of Community Colleges, 2010). In addition, 56% of women and 43% men in the United States are taking courses at numerous community colleges around the country (American Association of Community Colleges, 2010). Men are increasingly underrepresented in higher education and many fail to achieve educational goals particularly at 2-year institutions (Guerriero, 2009; Schmidt, 2010). Yet, community colleges have a difficult time addressing gender disparities in both enrollment and attrition. Limited studies exist explaining why fewer men pursue post-secondary studies over women and why more men leave college prematurely. Factors strongly related to retention among traditional and non-traditional students at community colleges and 4-year institutions as explained by Tinto (1975, 1993), Astin (1984), and Bean and Metzner (1985) include academic preparation, motivation, social integration, and external demands such as finances or family issues. Given the significant influence of the above factors to the social fabric of the community as well as to the labor force and economy, greater attention is needed to address institutional deficiencies and ensure community colleges not only provide access, but also facilitate success.

Student Services Programs and Practices Associated with Student Retention

Due to open access policies, community colleges enroll students of diverse academic and personal backgrounds. Student enrollment at community colleges has increased significantly the last few years due to huge layoffs caused by the weak economy. The challenge for 2-year institutions will be retaining the 46% of students disappearing before their sophomore year (Smith, 2010). In their effort to establish practices that promote student success, McClenney and Waiwaiole (2005) reported "colleges must provide appropriate support and guidance for students from the earliest days of their higher education experience" (p. 36). In the focus groups conducted for this project, McClenney and Waiwaiole (2005) discovered a number of effective strategies that are used at some of the colleges they visited. Two of the key strategies were offering effective advising and implementing an orientation program for new students.

New student orientation program. To overcome the student retention problem, institutions are implementing early intervention strategies such as mandatory new student orientation programs. The goal of the New Student Orientation program is to "help first-year college students understand their responsibilities, facilitate their academic and social integration into college culture, identify barriers that may exist during their educational journey and devise strategies to overcome those hurdles, and introduce academic planning" (Smith, 2010, p. 4). Student orientation programs serve important functions in the student's early experience at the college. In addition to being introduced to the number of campus resources, students are able to connect with other students, faculty, and the staff at the college (Chaves, 2003; Pascarella & Terenzini,

1986; Terenzini et al., 1994; Upcraft et al., 2005).

Advising and counseling. Other effective intervention practices showing improvement in student retention include academic advising and counseling (Mullin, 2010). Ugo (2010) mentions that, "student services at community colleges such as counseling, advising, tutoring, and supplemental instruction, are effective methods used for student achievement" (p. 2). Faculty, advisors, and counselors must intervene early, and often, to ensure students with academic deficiencies or personal problems receive adequate support before it is too late. At the core of the problem, much research on student retention confirms student support services such as advising, counseling, and tutoring, are critical elements of the entering student's success. Student support services provide incentives for campus involvement and fulfillment for the students and promote social and academic integration (Ugo, 2010).

Early alert program. The Early Alert Program is another collaborative student intervention strategy providing assistance to students experiencing academic difficulties in the classroom. Faculty are asked to refer students who are struggling in the classroom, or chronically absent from the class, to the counseling office. A counselor contacts the student and discusses the academic concerns to find solutions in the myriad of factors affecting scholastic success.

Student success course. Many community colleges require all first time freshmen students that are placed in one or more developmental education courses to enroll in a student success course. The student success course is designed to assist students in career path advising, improve study habits, develop time management skills,

and assist in developing clear education and career goals. Zeidenberg, Jenkins, and Calcagno (2007) reveal,

> Community colleges across the nation face the challenge of serving students who are not prepared to succeed in college. Many of these students have inadequate academic skills, and community colleges offer developmental courses, tutoring, and other academic supports to help students overcome these deficiencies. But students also frequently arrive on campus with other deficits, including poorly formed goals for education and careers, a lack of good study habits, and little awareness of how to succeed in higher education settings. They are also often unfamiliar with resources available on campus to help them succeed. (p. 5)

Chapter Summary

A review of the literature related to retention and persistence of students at community colleges and 4-year institutions was captured in this chapter. In addition, a brief overview of Qatar, its education system and challenges pertaining to college enrollment and degree attainment was also covered in the chapter. The literature review on Qatar's overall background and the development of the Community College of Qatar assisted in providing an understanding of the students that are participating in the study as well as Qatar's social and academic backgrounds.

Chapter Three: Methodology and Procedures

Introduction

Extensive research supports retention and persistence rate problems at community colleges in the United States (Ugo, 2010). Limited research has been conducted to support achievement and retention rates of Qatari students at the post-secondary education level. It is the researcher's observation that the entering students that enrolled at the Community College of Qatar appeared to exhibit signs of at-risk characteristics that are typical in non-traditional, first time in college students most familiar at community college students in the United States. Community college students tend to be older, first-generation, married, holding down a job outside of academic responsibilities, and demonstrate limited proficiency in reading and writing. Students are more likely to experience academic and social challenges, which could impede personal learning processes unless the college provides sufficient support weeks before entering the college. The researcher's intention of this study was to explore the differences in academic and social experiences between entering male and female students and returning male and female students three weeks into the college. Quantitative data was collected using both the Survey of Entering Student Engagement (SENSE) for new students and the Community College Survey of Student Engagement (CCSSE) for returning students.

Chapter three describes the research methodology that was employed in carrying out the study. Areas covered in this chapter include the purpose of the study, research

questions, methodology, research design, procedures for data collection, data analysis, and summary.

Purpose of the Study

The purpose of this study was to explore the differences in experiences, perceptions, expectations, and engagement levels of entering and returning community college students at the gender-segregated Community College of Qatar. The study also attempted to determine if any student support services such as advising, tutoring, counseling, transfer credit assistance, and participation in student activities were useful and had any influence in promoting student engagement and retention.

Research Questions

The following research questions focusing on student experiences during first three to six weeks at the college were used to conduct the study:

1. What are the differences in experiences and engagement levels between male and female students during the first three to six weeks at the college?
2. What are the differences in perceptions and engagem ent levels between male and female students during the first three to six weeks at the college?
3. What are the differences in expectat ions and engagem ent levels between male and female students during the first three to six weeks at the college?
4. How useful were the student support services in assisting students to understand the community college model?
5. How useful were the student support serv ices in assisting students to know how to utilize the wide variety of on campus resources and services?

6. How useful were the student support services in assisting students to understand their academic and career pathways?

Methodology

The study was designed to explore any differences in experiences, perceptions, expectations, and engagement levels of community college students during the first three to six weeks at the gender-segregated Community College of Qatar (CCQ). Phase two of the study sought to explore the usefulness of student support services during the students first three weeks at the college. Data was collected to determine whether (a) incoming students were knowledgeable about the support services offered at CCQ, (b) the frequency that the students used the support services offered by CCQ; and (c) how satisfied the students were with the services provided by the college. In addition, the study attempted to discover which student group, entering male or female; returning male or female, was more engaged by measuring the levels of participation in student activities, requests for counseling and advising, tutoring, and other student support services during the first three to six weeks at the college.

Research Design

A quantitative, non-experimental method using subsets of items from the Survey of Entering Student Engagement (SENSE) instrument was administered in the third week of the spring 2011 term to entering CCQ students that participated in the study. The SENSE tool consisted of selected questions that covered the following six national benchmarks:

1. Personal Connections
2. High Expectations and Aspirations
3. A Plan and a Pathway to Success
4. An Effective Track to College Readiness
5. Engaged Learning
6. An Integrated Network of Financial, Social, and Academic Support

Next, for returning male and female students, subsets of questions from the Community College Survey of Student Engagement (CCSSE) were administered in April. The CCSSE instrument consisted of questions from a number of national benchmarks that have been used by more than 700 community colleges in the United States to assess their educational practices and improve student outcomes. The five CCSSE benchmarks include:

1. Active and Collaborative Learning
2. Academic Challenge
3. Student Effort
4. Support for Learners
5. Student-Faculty Interaction

Data collection. As stated in the research design, the SENSE and CCSSE survey instruments were administered and collected in the spring 2011 semester to entering and returning male and female students that agreed to participate in the study. The researcher selected a number of variables from the survey instruments that demonstrate student engagement and effectiveness of student support services in promoting student success

and retention.

Data analysis. Data was analyzed using descriptive statistics. To help answer all the six research questions, the survey responses were selected and grouped according to SENSE and CCSSE benchmarks first. For entering male and female students the researcher carefully selected variables from the following SENSE constructs:

- Engaged Learning
- Early Connections
- Clear Academic Plan and Pathway
- Academic and Social Support Network
- Effective Track to College Readiness

Similarly, the CCSSE benchmarks used for the purpose of this study were:

- Active and Collaborative Learning
- Student Effort
- Support for Learners
- Student-Faculty Interaction

After grouping the survey questions according to each SENSE and CCSSE benchmarks, the researcher then grouped the responses according to experience, perception, and expectation of entering and returning students as it relates to the college and in response to research questions 1, 2, and 3. Next, the researcher answered research questions 4, 5, and 6 by selecting survey questions that pertain to student support services from the SENSE and CCSSE constructs. This two-phase grouping approach helped guide the study and revealed the engagement patterns of entering and returning

male and female students at the Community College of Qatar. To determine if statistically significant differences in engagement levels existed among the student groups, the researcher used the Statistical Package for Social Sciences (SPSS) and the one-sample *t*-tests to collect the frequency statistics.

Survey instruments. The surveys used for this study contained a total of 109 questions selected from SENSE and CCSSE instruments. For the purpose of this study and to measure student engagement levels, the researcher selected 56 questions or variables from the SENSE code book and 53 variables from the CCSSE code book. As shown in Tables 1 through 9, the 109 variables were selected and grouped into categories according to SENSE and CCSSE benchmarks.

Procedures for Obtaining Informed Consent for SENSE and CCSSE

The researcher obtained permission from the Center for Community College Survey of Student Engagement (CCCSSE) in fall 2010 to administer the SENSE and CCSSE instruments to students at the Community College of Qatar for the purpose of this research study. CCQ students that agreed to participate in the study were provided with an oral overview of the study by the researcher and were encouraged to ask questions before signing the informed consent form. They were also aware that their participation in the study is entirely voluntary and were assured that their responses will neither affect their relationship with the researcher nor the institution.

Chapter Summary

Chapter three covered the research design of the study that included the methodology, data collection, and analysis. The SENSE and CCSSE data that consisted of 109 questions on student engagement were administered to entering and returning students at the Community College of Qatar in the spring 2011 semester. Statistical Package for Social Sciences (SPSS) and one-sample *t*-tests were run to measure the statistical differences in engagement levels. Chapter four describes the statistical methods used to conduct the study and examines key findings from the survey results.

Table 1

Description of SENSE Variables: Clear and Academic Plan and Pathway

Benchmark	Variable Label
Clear Academic Plan and Pathway	All the courses I needed to take during my first semester/quarter were available at times convenient for me
	I was able to meet with an academic advisor at times convenient for me
	An advisor helped me to select a course of study, program, or major
	An advisor helped me to set academic goals and to create a plan for achieving them
	An advisor helped me identify the courses I needed to take during my first semester/quarter
	A college staff member talked with me about my commitments outside of school (work, children, dependents, etc.) to help me figure out the number of courses to take

Table 2

Description of SENSE variables: Early Connections

Benchmark	Variable Label
Early Connections	The very first time I came to this college I felt welcome
	The instructors at this college want me to succeed
	At least one college staff member (other than an instructor) learned my name
	At least one instructor learned my name
	I learned the name of at least one other student in most of my classes

Table 3

Description of SENSE Variables: Academic and Social Support Network

Benchmark	Variable Label
Academic and Social Support Network	All instructors had activities to introduce students to one another
	All instructors clearly explained academic and student support services available at this college
	All instructors clearly explained course grading policies
	Instructors clearly explained course syllabi (syllabuses)
	I knew how to get in touch with my instructors outside of class
	Satisfaction: Academic advising/planning
	Satisfaction: Career Counseling
	Satisfaction: Transfer credit assistance
	Did you know about: Academic advising/planning
	Did you know about: Career Counseling
	Did you know about: Transfer credit assistance
	Frequency: Academic advising/planning
	Frequency: Career Counseling
	Frequency: Transfer credit assistance

Table 4

Description of SENSE Variables: Engaged Learning

Benchmark	Variable Label
Engaged Learning	Asked questions in class or contributed to class discussions
	Prepared at least two drafts of a paper or assignment before turning it in
	Participated in supplemental instruction (extra class sessions with an instructor tutor, or experienced student)
	Worked with other students on a project or assignment during class
	Worked with classmates outside of class on class projects or assignments
	Participated in a required study group outside of class
	Participated in a student-initiated (not required) study group outside of class
	Used an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with another student about coursework
	Used an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with an instructor about coursework
	Discussed an assignment or grade with an instructor
	Asked for help from an instructor regarding questions or problems related to a class
	Received prompt written or oral feedback from instructors on your performance
	Discussed ideas from readings or classes with instructors outside of class
	Frequency: Face-to-face tutoring
	Frequency: Writing, math, or other skill lab
	Frequency: Computer lab
	Frequency: Student organizations
	Frequency: Services to students with disabilities
	Satisfaction: Face-to-face tutoring
	Satisfaction: Writing, math, or other skill lab
	Satisfaction: Computer lab
	Satisfaction: Student organizations Satisfaction: Services for people with disabilities
	Did you know about: Face-to-face tutoring
	Did you know about: Writing, math, or other skill lab
	Did you know about: Computer lab
	Did you know about: Student organizations
	Did you know about: Services to students with disabilities

Table 5

Description of SENSE Variables: Effective Track to College Readiness

Benchmark	Variable Label
Effective Track to College Readiness	With a class, or through another experience at this college: I learned to improve my study skills (listening, note taking, highlighting readings, working with others, etc.)
	With a class, or through another experience at this college: I learned to understand my academic strengths and weaknesses
	With a class, or through another experience at this college: I learned skills and strategies to improve my test-taking ability

Table 6

Description of CCSSE Variables: Active and Collaborating Learning

Benchmark	Variable Label
Active and Collaborating Learning	How often you asked questions in class or contributed to class discussions
	Made a class presentation
	Worked with other students on projects during class
	Worked with classmates outside of class to prepare class assignments
	Tutored or taught other students (paid or voluntary)
	Discussed ideas from your readings or classes with instructors outside of class
	Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

Table 7

Description of CCSSE Variables: Student-Faculty Interaction

Benchmark	Variable Label
Student-Faculty Interaction	Used email to communicate with an instructor
	Discussed grades or assignments with an instructor
	Talked about career plans with an instructor or advisor
	Received prompt feedback (written or oral) from instructors on your performance
	Worked with instructors on activities other than coursework

Table 8

Description of CCSSE Variables: Student Effort

Benchmark	Variable Label
Student Effort	Prepared two or more drafts of a paper or assignment before turning it in
	Worked on a paper or project that required integrating ideas or information from various sources
	Come to class without completing readings or assignments
	Skipped class
	Preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program)
	Working for pay
	Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)
	Providing care for dependents living with you (parents, children, spouse, etc.)
	Commuting to and from classes
	Frequency: Peer or other tutoring
	Frequency: Skill labs (writing, math, etc.)
	Frequency: Computer lab
	Frequency: Student organizations
	Satisfaction: Peer or other tutoring
	Satisfaction: Skill labs (writing, math, etc.)
	Satisfaction: Computer lab
	Satisfaction: Student organizations
	Importance: Peer or other tutoring
	Importance: Skill labs (writing, math, etc.)
	Importance: Computer lab
	Importance: Student organizations

Table 9

Description of CCSSE Variables: Support for Learners

Benchmark	Variable Label
Support for Learners	Frequency: Academic advising/planning
	Frequency: Career counseling
	Frequency: Job placement assistance
	Frequency: Transfer credit assistance
	Frequency: Services to students with disabilities
	Satisfaction: Academic advising/planning
	Satisfaction: Career Counseling
	Satisfaction: Job placement assistance
	Satisfaction: Transfer credit assistance
	Satisfaction: Services to students with disabilities
	Encouraging you to spend significant amounts of time studying
	Providing the support you need to help you succeed at this college
	Helping you cope with your non-academic responsibilities (work, family, etc.)
	Providing the support you need to thrive socially
	Using computers in academic work
	Importance: Academic advising/planning
	Importance: Career counseling
	Importance: Job placement assistance
	Importance: Transfer credit assistance
	Importance: Services to students with disabilities

Chapter Four: Data Analysis and Findings

Introduction

The objective of this study was to explore the differences in experiences, perceptions, expectations, and engagement levels of entering and returning students at the Community College of Qatar during their first three to six weeks at the college. Additionally, the purpose was to determine if any of the student support services such as advising, tutoring, counseling, and participation in student activities had any influence in student engagement and student retention. This chapter provides descriptions of the statistical methods used to conduct the study and the findings for the statistical analysis for the following six research questions:

1. What are the differences in experiences and engagement levels between male and female students during the first three to six weeks at the college?
2. What are the differences in perceptions and engagement levels between male and female students during the first three to six weeks at the college?
3. What are the differences in expectations and engagement levels between male and female students during the first three to six weeks at the college?
4. How useful were the student support services in assisting students to understand the community college model?
5. How useful were the student support services in assisting students to know how to utilize the wide variety of on campus resources and services?
6. How useful were the student support services in assisting students to understand their academic and career pathways?

Analysis

Data was analyzed using descriptive statistics. Survey responses were classified using questions from the five Survey of Entering Student Engagement (SENSE) benchmarks for entering male and female students, and four Community College Survey of Student Engagement (CCSSE) benchmarks for returning male and female students. The researcher carefully selected variables from five of the six SENSE benchmarks:

- Engaged Learning
- Early Connections
- Clear Academic Plan and Pathway
- Academic and Social Support Network
- Effective Track to College Readiness

Similarly, the CCSSE benchmarks used for the purpose of this study were:

- Active and Collaborative Learning
- Student Effort
- Support for Learners
- Student-Faculty Interaction

This approach helped answer the six questions established for this study. It also assisted in the understanding of engagement patterns of entering and returning male and female students at the Community College of Qatar.

Sample characteristics. The focus of this study was on entering and returning male and female students at the Community College of Qatar. A total of 189 students enrolled at the Community College of Qatar participated in the study from which 94

participants (49.74%) were entering students and 95 participants (50.26%) were returning students. Among the entering students, 44 respondents (46.81%) were male students while 50 respondents (53.19%) were female students. Among the returning, students 44 respondents (46.32%) were male students and 51 (53.68%) were female students. All entering students responded to questions from the SENSE instrument while all returning students responded to questions from the CCSSE research instrument.

Engagement levels. This study required the use of a statistical software package, Statistical Package for the Social Sciences (SPSS) version 19.0, to complete the calculations. One-sample *t*-tests were run to determine if significant differences in engagement levels existed between the two independent groups for each of the benchmark categories. Differences in experiences, perceptions, and expectations of entering students during the first three to six weeks at the college were established according to the five SENSE benchmarks.

Likewise, *t* -tests were run for returning male and female students to determine the engagement levels as well as the differences in experiences, perceptions, and expectations during the first three to six weeks at the college based on the four CCSSE benchmark. Cohen's *d* calculations were used to measure the effect size and the standardized differences between the means of the two variables. The larger the effect size the greater the difference in experiences and engagement levels. Significance was based on Cohen's *d* effect sizes: small: $d = 0.2$ to 0.5, medium: $d = 0.5$ to 0.8, and large effect sizes: $d = 0.8$ and higher. For the purpose of this study, Cohen's *d* effect size of 0.35 or higher was used as the criteria for interpreting statistically significance.

Phase One

Entering students.

Research question 1. What are the differences in experiences and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered question 1 for entering male and female students by referring to survey responses classified into the five SENSE benchmarks or constructs that are related to the entering student experience during the first three to six weeks at CCQ.

Clear academic plan and pathway construct. As shown in Table 10, four out of the six variables yielded statistically significant differences in the Clear Academic Plan and Pathway construct. Out of the four variables, entering male students reported significantly higher engagement levels than entering female students in the variables: *All the courses I needed to take during my first semester/quarter were available at times convenient for me* (mean difference = 0.50; d = 0.4747); *I was able to meet with an academic advisor at times convenient for me* (mean difference = 0.40; d = 0.3772); *An advisor helped me to set academic goals and to create a plan for achieving them* (mean difference = 0.46; d = 0.4216)*;* and, *A college staff member talked with me about my commitments outside of school (work, children, dependents, etc.) to help me figure out the number of courses to take* (mean difference = 0.44; d = 0.3540)*.* Though not statistically significant, male students also reported higher levels of engagements in the variables*: An advisor helped me to select a course of study, program, or major* (mean

difference = 0.34; d = 0.2945)*; An advisor helped me identify the courses I needed to take during my first semester/quarter* (mean difference = 0.33; d = 0.2875).

Table 10

Comparisons between Entering Male and Female Students Experiences: Clear Academic Plan and Pathway Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
All the courses I needed to take during my first semester/quarter were available at times convenient for me	3.70	3.20	0.50	0.765	1.278	0.4747	0.2310
I was able to meet with an academic advisor at times convenient for me	3.70	3.30	0.40	0.878	1.216	0.3772	0.1853
An advisor helped me to select a course of study, program, or major	3.50	3.16	0.34	0.902	1.361	0.2945	0.1457
An advisor helped me to set academic goals and to create a plan for achieving them	3.52	3.06	0.46	0.902	1.252	0.4216	0.2063
An advisor helped me identify the courses I needed to take during my first semester/quarter	3.55	3.22	0.33	0.975	1.298	0.2875	0.1423
A college staff member talked with me about my commitments outside of school (work, children, dependents, etc.) to help me figure out the number of courses to take	3.18	2.74	0.44	1.105	1.367	0.3540	0.1743

Note: The above items used with permission from The Center for Community College Student Engagement, ***Survey of Entering Student Engagement 2010,*** The University of Texas at Austin.

Early connections construct. As observed in Table 11, there were no statistically significant differences found in all the four two variables in the Early Connections benchmark. However, entering female students reported slightly higher mean differences in two variables: *The very first time I came to this college I felt welcome (-0.17)* and *I learned the name of at least one other student in most of my classes (-0.22)*. For all the other variables in this construct, both male and female students seemed to have had the same experiences as they show similar levels of engagement.

Table 11

Comparisons between Entering Male and Female Students Experiences: Early Connections Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
The very first time I came to this college I felt welcome	4.23	4.40	-0.17	0.831	0.728	-0.2176	-0.1082
At least one college staff member (other than an instructor) learned my name	3.14	3.10	0.04	1.268	1.446	0.0294	0.0147
At least one instructor learned my name	3.84	3.88	-0.04	1.200	1.304	-0.0319	-0.0160
I learned the name of at least one other student in most of my classes	4.14	4.36	-0.22	1.069	1.025	-0.2101	-0.1045
How often you use academic advising/planning	1.66	1.72	-0.06	0.914	0.882	-0.0668	-0.0334
How often you use career counseling	1.50	1.64	-0.14	0.849	0.942	-0.1561	-0.0778
How often you use transfer credit assistance	1.43	1.54	-0.11	0.950	0.862	-0.1213	-0.0605

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010,* The University of Texas at Austin.

Academic and social support network construct. Table 12 shows two statistically significant differences were found in the Academic and Social Support Network construct. Female students experienced higher levels of engagement than entering male students in the variables*: All instructors had activities to introduce students to one another* (mean difference = -0.44; d = -0.4499), and *All instructors clearly explained academic and student support services available at this college* (mean difference = -0.37; d = -0.3621). Though not statistically significant female students reported higher frequencies in two other variables: *How satisfied are you with career counseling* (mean difference = -0.22; d = -0.2078), and *How satisfied are you with transfer credit assistance* (mean difference = -0.29; d = -0.2960).

Table 12

Comparisons between Entering Male and Female Students Experiences: Academic and Social Support Network Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
All instructors had activities to introduce students to one another	3.52	3.96	-0.44	1.067	0.880	-0.4499	-0.2195
All instructors clearly explained academic and student support services available at this college	3.39	3.76	-0.37	1.061	0.981	-0.3621	-0.1782
All instructors clearly explained course grading policies	4.05	4.02	0.03	0.834	1.000	0.0326	0.0163
Instructors clearly explained course syllabi (syllabuses)	4.02	3.88	0.14	0.902	0.895	0.1558	0.0777
How satisfied are you with academic advising/planning	2.23	2.12	0.11	1.159	1.118	0.0966	0.0482
How satisfied are you with career counseling	1.84	2.06	-0.22	1.098	1.018	-0.2078	-0.1033
How satisfied are you with transfer credit assistance	1.75	2.04	-0.29	0.991	0.968	-0.2960	-0.1464

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010,* The University of Texas at Austin.

Engaged learning construct. There were eleven statistically significance differences found in the Engaged Learning benchmark. As illustrated in Table 13, entering female students reported higher levels of engagement than entering male students in the variables: *Asked questions in class or contributed to class discussions* (mean difference = -0.32; d = -0.4613), *Prepared at least two drafts of a paper or assignment before turning it in* (mean difference = -0.41; d = -0.4428), *Worked with*

other students on a project or assignment during class (mean difference = -0.84; d = -0.7979), *Worked with classmates outside of class on class projects or assignments* (mean difference = -0.78; d = -0.7889), *Participated in a required study group outside of class* (mean difference = -0.42; d = -0.4713), *Participated in a student-initiated (not required) study group outside of class* (mean difference = -051; d = -0.6144), *Used an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with another student about coursework* (mean difference = -0.47; d = -0.3876), *Discussed an assignment or grade with an instructor* (mean difference = -0.56; d = -0.5312), *Writing, math, or other skills lab* (mean difference = -0.60; d = -0.5366), *Services to students with disabilities* (mean difference = -0.26; d = -0.3681). Entering male students reported one statistically significant higher frequency in the variable: *Used an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with an instructor about coursework* (mean difference = 0.50; d = 0.4384). It is also worth to note that entering female students experienced a higher mean difference in the How often you use Student organizations (-0.25).

Table 13

Comparisons between Entering Male and Female Students Experiences: Engaged Learning Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Asked questions in class or contributed to class discussions	3.20	3.52	-0.32	0.765	0.614	-0.4613	-0.2248
Prepared at least two drafts of a paper or assignment before turning it in	2.45	2.86	-0.41	0.926	0.926	-0.4428	-0.2161
Participated in supplemental instruction (extra class sessions with an instructor tutor, or experienced student)	1.57	1.76	-0.19	0.900	0.981	-0.2018	-0.1004
Worked with other students on a project or assignment during class	2.36	3.20	-0.84	1.183	0.904	-0.7979	-0.3705
Worked with classmates outside of class on class projects or assignments	1.52	2.30	-0.78	0.849	1.11	-0.7889	-0.3670
Participated in a required study group outside of class	1.32	1.74	-0.42	0.674	1.065	-0.4713	-0.2294
Participated in a student-initiated (not required) study group outside of class	1.23	1.74	-0.51	0.605	1.006	-0.6144	-0.2937
Used an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with another student about coursework	1.93	2.40	-0.47	1.108	1.309	-0.3876	-0.1902

Table 13 (continued).

Comparisons between Entering Male and Female Students Experiences: Engaged Learning Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Used an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with an instructor about coursework	2.70	2.20	0.50	1.173	1.107	0.4384	0.2141
Discussed an assignment or grade with an instructor	2.16	2.72	-0.56	1.077	1.031	-0.5312	-0.2567
Asked for help from an instructor regarding questions or problems related to a class	2.73	2.88	-0.15	0.997	0.982	-0.1516	-0.0756
Received prompt written or oral feedback from instructors on your performance	2.30	2.40	-0.10	1.193	1.125	-0.0862	-0.0431
Discussed ideas from readings or classes with instructors outside of class	2.00	1.94	0.06	1.012	1.150	0.0554	0.0277
How often you use Face-to-face tutoring	1.43	1.58	-0.15	0.789	1.012	-0.1653	-0.0824
How often you use Writing, math, or other skills lab	2.02	2.62	-0.60	1.131	1.105	-0.5366	-0.2592
How often you use Computer lab	3.14	3.04	0.10	1.091	1.068	0.0926	0.0463
How often you use Student organizations	1.57	1.82	-0.25	1.021	1.155	-0.2569	-0.1274
How often you use Services to students with disabilities	1.18	1.44	-0.26	0.582	0.812	-0.3681	-0.1810

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010,* The University of Texas at Austin.

Research question 2. What are the differences in perceptions and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered research question number two for entering male and female students by referring to survey responses classified into the five SENSE constructs that are related to the entering student perceptions during the first three to six weeks at the college.

Early connections construct. As illustrated in Table 14, although entering female students reported higher mean difference (0.17), there was no statistically significant difference found in the Early Connections construct.

Academic and social support network construct. As seen in Table 15, the mean difference in the variable is small and insignificant. Thus, no statistically significant difference was found in the Academic and Social Support Network benchmark.

Table 14

Comparisons between Entering Male and Female Students Perceptions: Early Connections Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
The instructors at this college want me to succeed	4.43	4.26	0.17	0.728	0.965	0.1984	0.0987

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010,* The University of Texas at Austin.

Table 15

Comparisons between Entering Male and Female Students Perceptions: Academic and Social Support Network Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
I knew how to get in touch with my instructors outside of class	3.80	3.82	-0.02	1.133	1.304	-0.0164	-0.0082

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010*, The University of Texas at Austin.

Engaged learning construct. One statistically significant difference was found in the Engaged Learning construct. As observed in Table 16, entering female students reported statistically significant higher frequency in the variable: *Indicate how satisfied you are with the following services: Student Organizations* (mean difference = -0.45; d = -0.4415). Also, though not statistically significant, entering female students reported higher frequencies than entering male students in one other variable: *How satisfied you are with Writing, math, or other skills lab* (mean difference = -0.36; d = -0.3171). In summary, entering female students reported higher levels of engagement in this construct.

Table 16

Comparisons between Entering Male and Female Students Perceptions: Engaged Learning Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How satisfied are you with Face-to-face tutoring	1.73	1.86	-0.13	1.065	0.926	-0.1303	-0.0650
How satisfied are you with Writing, math, or other skills lab	2.36	2.72	-0.36	1.163	1.107	-0.3171	-0.1566
How satisfied are you with Computer lab	3.05	3.16	-0.11	0.914	1.057	-0.1113	-0.0556
How satisfied are you with Student organizations	1.75	2.20	-0.45	0.967	1.069	-0.4415	-0.2156
How satisfied are you with Services to students with disabilities	1.75	1.86	-0.11	0.967	0.904	-0.1175	-0.0587

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010*, The University of Texas at Austin.

Effective track to college readiness construct. Although no statistically significant differences were found in the Effective Track to College Readiness benchmark, Table 17 shows female students reported higher mean differences in one variable With a class, or through another experience at this college: *I learned to understand my academic strengths and weaknesses (-0.22).*

Table 17

Comparisons between Entering Male and Female Students Perceptions: Effective Track to College Readiness Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
With a class, or through another experience at this college: I learned to improve my study skills (listening, note taking, highlighting readings, working with others, etc.)	3.89	3.90	-0.01	1.083	1.199	-0.0088	-0.0044
With a class, or through another experience at this college: I learned to understand my academic strengths and weaknesses	3.50	3.72	-0.22	1.151	1.011	-0.2031	-0.1010
With a class, or through another experience at this college: I learned skills and strategies to improve my test-taking ability	3.73	3.74	-0.01	0.997	0.965	-0.0102	-0.0051

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010,* The University of Texas at Austin.

Research question 3. What are the differences in expectations and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered research question three for entering male and female students by referring to survey responses classified into the five SENSE benchmarks that are related to the entering student expectations during the first three to six weeks at the college.

Academic and social support network construct. No statistically significant

difference was found in the Academic and Social Support Network benchmark as reported in Table 18. It appears that all the variables in this construct were important for both entering female and male students.

Table 18

Comparisons between Entering Male and Female Students Expectations: Academic and Social Support Network Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How important is academic advising/planning	1.48	1.52	-0.04	0.505	0.505	-0.0792	-0.0396
How important is career counseling	1.70	1.66	0.04	0.462	0.479	0.0850	0.0425
How important is transfer credit assistance	1.70	1.76	-0.06	0.462	0.431	-0.1343	-0.0670

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010*, The University of Texas at Austin.

Engaged learning construct. Although no statistically significant differences were found in the Engaged Learning construct, Table 19 shows entering female students reported slightly higher frequencies in two variables: *How important is the Computer lab* (mean difference = -0.08; d = -0.2457), *How important are Services to students with disabilities* (mean difference = -0.12; d = -0.2735).

Table 19

Comparisons between Entering Male and Female Students Expectations: Engaged Learning Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How important is Face-to-face tutoring	1.66	1.58	0.08	0.479	0.499	0.1636	0.0815
How important are Writing, math, or other skills labs	1.43	1.34	0.09	0.501	0.479	0.1836	0.0914
How important is the Computer lab	1.16	1.08	0.08	0.370	0.274	0.2457	0.1219
How important are Student organizations	1.59	1.66	-0.07	0.497	0.479	-0.1434	-0.0715
How important are Services to students with disabilities	1.68	1.80	-0.12	0.471	0.404	-0.2735	-0.1355

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010,* The University of Texas at Austin.

Returning Students

Research question 1. What are the differences in experiences and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered research question one for returning male and female students by referring to survey responses classified into the five CCSSE benchmarks that are related to returning student experiences during the first three to six weeks at the college.

Active and collaborating learning construct. Three statistically significant differences were detected in the Active and Collaborative Learning benchmark. Table 20 shows returning female students reported statistically significant differences than returning male students in the variables: *Made a class presentation* (mean difference = -0.44; d = -0.5209), *Worked with classmates outside of class to prepare class assignments* (mean difference = -0.35; d = -0.3986), and *Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)* (mean difference = -0.39; d = -0.4598). Though not statistically significant, returning male students reported higher frequency in the variables: *Discussed ideas from your readings or classes with instructors outside of class* (mean difference = 0.25; d = 0.2740), *How often you asked questions in class or contributed to class discussions* (mean difference = 0.21; d = 0.2558), *while returning female students reported higher frequency in one variable: Worked with other students on projects during class* (mean difference = -0.27; d = -0.3220).

Student–faculty interaction construct. The Student-Faculty Interaction construct yielded three statistically significant differences. As shown in Table 21, returning male students reported higher frequencies in the variables: *Used email to communicate with an instructor* (mean difference = 0.41; d = 0.4076) *Received prompt feedback (written or oral) from instructors on your performance* (mean difference = 0.54; d = 0.6110) *Worked with instructors on activities other than coursework* (mean difference = 0.65; d = 0.8078).

Table 20

Comparisons between Returning Male and Female Students Experiences: Active and Collaborating Learning Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How often you asked questions in class or contributed to class discussions	2.93	2.72	0.21	0.808	0.834	0.2558	0.1268
Made a class presentation	2.68	3.12	-0.44	0.800	0.887	-0.5209	-0.2521
Worked with other students on projects during class	2.63	2.90	-0.27	0.846	0.831	-0.3220	-0.1589
Worked with classmates outside of class to prepare class assignments	2.41	2.76	-0.35	0.871	0.885	-0.3986	-0.1955
Tutored or taught other students (paid or voluntary)	2.05	2.10	-0.05	0.825	0.886	-0.0584	-0.0292
Discussed ideas from your readings or classes with instructors outside of class	2.43	2.18	0.25	0.846	0.974	0.2740	0.1358
Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	2.34	2.73	-0.39	0.745	0.940	-0.4598	-0.2241

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Table 21

Comparisons between Returning Male and Female Students Experiences: Student–Faculty Interaction Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Used email to communicate with an instructor	2.74	2.33	0.41	0.978	1.033	0.4076	0.1997
Discussed grades or assignments with an instructor	2.74	2.67	0.07	0.734	0.931	0.0835	0.0417
Talked about career plans with an instructor or advisor	2.45	2.47	-0.02	0.848	1.027	-0.0212	-0.0106
Received prompt feedback (written or oral) from instructors on your performance	2.66	2.12	0.54	0.834	0.931	0.6110	0.2922
Worked with instructors on activities other than coursework	2.43	1.78	0.65	0.873	0.730	0.8078	0.3745

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Student effort construct. Eight statistically significant differences were found in the Student Effort benchmark. As specified in Table 22, returning male students reported statistically significant higher frequencies than returning female students in the variables*: Come to class without completing readings or assignments* (mean difference = 0.48; d = 0.5293)*, Skipped class* (mean difference = 0.37; d = 0.4330), *Working for pay* (mean difference = 1.32; d = 0.8920), *Providing care for dependents living with you (parents, children, spouse, etc.)* (mean difference = 0.69; d = 0.4832), *Commuting to and from classes* (mean difference = 0.53; d = 0.3802). In the same construct, three statistically significant differences were found where returning female students had

higher frequencies than returning male students in the variables: *How often did you use Writing, math, or other skills lab* (mean difference = -0.52; d = -0.6142), *How often did you use Computer lab* (mean difference = -0.25; d = -0.3525), *How often did you use Student organizations* (mean difference = -0.30; d = -0.3601). Though not statistically significant returning female students also reported higher frequency in the variable: *Prepared two or more drafts of a paper or assignment before turning it in* (mean difference = -0.25; d = -0.3525), while returning male students reported higher frequency in the variable: *Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)* (mean difference = 0.48; d = 0.3290).

Support for learners construct. One statistically significant difference was found in the Support for Learners benchmark. As shown in Table 23, returning male students reported higher engagement levels in the variable: *How often did you use Services to students with disabilities* (mean difference = 0.39; d = 0.4084). Male students also reported a higher frequency than female students in the variable: *How often did you use Academic advising/planning* (mean difference = 0.29; d = 0.3109).

Table 22

Comparisons between Returning Male and Female Students Experiences: Student Effort Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Prepared two or more drafts of a paper or assignment before turning it in	2.48	2.73	-0.25	0.731	0.961	-0.2928	-0.1449
Worked on a paper or project that required integrating ideas or information from various sources	2.64	2.52	0.12	0.838	0.762	0.1498	0.0747
Come to class without completing readings or assignments	2.16	1.68	0.48	0.987	0.819	0.5293	0.2558
Skipped class	1.84	1.47	0.37	1.033	0.674	0.4330	0.2116
Preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program)	3.34	3.33	0.01	1.140	1.243	0.0084	0.0042
Working for pay	3.11	1.79	1.32	1.742	1.160	0.8920	0.4073
Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)	3.20	2.72	0.48	1.488	1.425	0.3290	0.1625
Providing care for dependents living with you (parents, children, spouse, etc.)	3.52	2.83	0.69	1.422	1.434	0.4832	0.2348
Commuting to and from classes	3.59	3.06	0.53	1.352	1.435	0.3802	0.1867
How often did you use Peer or other tutoring	2.50	2.60	-0.10	0.902	0.863	-0.1133	-0.0566
How often did you use Writing, math, or other skills lab	2.68	3.20	-0.52	0.934	0.739	-0.6142	-0.2936
How often did you use Computer lab	3.27	3.52	-0.25	0.727	0.691	-0.3525	-0.1736
How often did you use Student organizations	2.68	2.98	-0.30	0.883	0.780	-0.3601	-0.1772

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Table 23

Comparisons between Returning Male and Female Students Experiences: Support for Learners Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How often did you use Academic advising/planning	2.84	2.55	0.29	0.914	0.951	0.3109	0.1536
How often did you use Career counseling	2.41	2.51	-0.10	0.948	0.968	-0.1044	-0.0521
How often did you use Job placement assistance	2.14	2.20	-0.06	1.025	0.878	-0.0629	-0.0314
How often did you use Transfer credit assistance	2.25	2.26	-0.01	1.081	1.063	-0.0093	-0.0047
How often did you use Services to students with disabilities	2.50	2.11	0.39	0.902	1.005	0.4084	0.2001

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Research question 2. What are the differences in perceptions and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered question two for returning male and female students by referring to survey responses sorted into the five CCSSE constructs that are related to returning student perceptions during the first three to six weeks at the college.

Student effort construct. Table 24 shows no statistically significant difference reported in the Student Effort construct. Though not as significant, returning female students reported a higher frequency in one variable: *How satisfied you were with Writing, math, or other skills lab* (mean difference = -0.25; d = -0.3525).

Support for learners construct. As illustrated in Tables 25 and 26, three statistically significant differences were found in the Support for Learners benchmark. Returning male students reported statistically higher frequencies than returning female students in the variables: *How satisfied you were with Transfer credit assistance* (mean difference = 0.46; d = 0.4492) and *How satisfied you were with Services to students with disabilities* (mean difference = 0.36; d = 0.3516), while returning female students reported higher frequency in the variable: *Using computers in academic work* (mean difference = -0.46; d = -0.5082).

Table 24

Comparisons between Returning Male and Female Students Perceptions: Student Effort Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How satisfied you were with Peer or other tutoring	2.45	2.67	-0.22	1.066	0.977	-0.2152	-0.1070
How satisfied you were with Writing, math, or other skills lab	2.86	3.14	-0.28	0.878	0.905	-0.3140	-0.1551
How satisfied you were with Computer lab	3.00	3.20	-0.20	0.807	0.859	-0.2400	-0.1191
How satisfied you were with Student organizations	2.66	2.60	0.06	0.987	0.889	0.0639	0.0319

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Table 25

Comparisons between Returning Male and Female Students Perceptions: Support for Learners Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How satisfied you were with Academic advising/planning	2.70	2.60	-0.10	0.878	1.095	0.1008	0.0503
How satisfied you were with Career counseling	2.59	2.76	-0.17	0.996	0.822	-0.1862	-0.0927
How satisfied you were with Job placement assistance	2.32	2.47	-0.15	0.983	1.014	-0.1502	-0.0749
How satisfied you were with Transfer credit assistance	2.55	2.09	0.46	0.975	1.071	0.4492	0.2191
How satisfied you were with Services to students with disabilities	2.50	2.14	0.36	1.067	0.979	0.3516	0.1731

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010*, The University of Texas at Austin.

Table 26

Comparisons between Returning Male and Female Students Perceptions: Support for Learners Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Encouraging you to spend significant amounts of time studying	3.09	2.93	0.16	0.741	0.963	0.1862	0.0927
Providing the support you need to help you succeed at this college	3.16	3.22	-0.06	0.713	0.941	-0.0719	-0.0359
Helping you cope with your non-academic responsibilities (work, family, etc.)	2.50	2.69	-0.19	0.902	0.874	-0.2139	-0.1064
Providing the support you need to thrive socially	2.82	2.91	-0.09	0.870	1.041	-0.0938	-0.0469
Using computers in academic work	2.82	3.28	-0.46	0.971	0.834	-0.5082	-0.2463

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010*, The University of Texas at Austin.

Research question 3. What are the differences in expectations and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered research question number three for returning male and female students by referring to survey responses classified into the five CCSSE benchmarks that are related to returning student perceptions during the first three to six weeks at the college.

Support for learners. Two statistically significant differences were found in the Support for Learners benchmark. As shown in Table 27, returning female students reported statistically higher frequencies than returning male students in the variables: *How important is Academic advising/planning* (mean difference = -0.34; d = -0.6078), *How important is Career counseling* (mean difference = -0.40; d = -0.6528). Also, though not as significant, returning female students reported higher frequencies in the variable: *How important is Job placement assistance* (mean difference = -0.25; d = -0.3300).

Table 27

Comparisons between Returning Male and Female Students Expectations: Support for Learners

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How important is Academic advising/planning	2.39	2.73	-0.34	0.579	0.539	-0.6078	-0.2908
How important is Career counseling	2.27	2.67	-0.40	0.694	0.519	-0.6528	-0.3103
How important is Job placement assistance	2.18	2.43	-0.25	0.786	0.728	-0.3300	-0.1628
How important is Transfer credit assistance	2.23	2.33	-0.10	0.711	0.707	-0.1410	-0.0703
How important is Services to students with disabilities	2.20	2.36	-0.16	0.701	0.773	-0.2168	-0.1079

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010*, The University of Texas at Austin.

Student effort construct. One statistically significant difference was found in the Student Effort construct. As observed in Table 28, returning female students reported a statistically higher frequency than returning male students in the variable: *How important is Writing, math, or other skills lab* (mean difference = -0.24; d = -0.4045).

Table 28

Comparisons between Returning Male and Female Students Perceptions: Student Effort Construct

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How important is Peer or other tutoring	2.18	2.38	-0.20	0.691	0.614	-0.3060	-0.1512
How important is Writing, math, or other skills lab	2.43	2.67	-0.24	0.625	0.560	-0.4045	-0.1982
How important is Computer lab	2.50	2.48	0.02	0.550	0.658	0.0330	0.0165
How important is Student organizations	2.25	2.30	-0.05	0.686	0.756	-0.0693	-0.0346

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Phase Two

The influence of student support services on student engagement. To answer research questions 4, 5, and 6 on the role of student support services in promoting student engagement and retention, the researcher compared engagement levels of entering male and female students and returning male and female students using SENSE and CCSSE responses that are related to student support services respectively.

4. How useful were the student support services in assisting students to understand the community college model?

5. How useful were the student support serv ices in assisting students to know how to utilize the wide variety of on campus resources and services?
6. How useful were the student support services in assisting students to understand their academic and career pathways?

The purpose was to find out which group was more aware of the services and which group utilized the services in higher proportions as well as determine the levels of dissatisfaction associated with each service. Table 29 reveals the student support services and related SENSE and CCSSE variables that were examined in phase two of this study.

Table 29

Student Support Services Variables

Variables
Academic Advising/planning
Writing, math or other skills labs
Tutoring
Career counseling
Student organizations
Transfer credit assistance
Job placement assistance
Students with disabilities

Entering male and female students. Table 30 shows 28 variables that are related to student support services. Entering male students reported statistically significant higher frequencies than entering female students in two variables*: I was able to meet with an academic advisor at times convenient for* me (mean difference = 0.40; d = 0.3772), and *An advisor helped me to set academic goals and to create a plan for achieving* them (mean difference = 0.46; d = 0.4216). Though not statistically significant, it is also important to note that entering male students reported higher frequencies in*: An advisor helped me to select a course of study, program, or major* (mean difference = 0.34; d = 0.2945), and *An advisor helped me identify the courses I needed to take during my first semester/quarter* (mean difference = 0.33; d = 0.2875).

Table 30

Comparisons between Entering Male and Female Students: Usefulness of Academic Advising

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
I was able to meet with an academic advisor at times convenient for me	3.70	3.30	0.40	0.878	1.216	0.3772	0.1853
An advisor helped me to select a course of study, program, or major	3.50	3.16	0.34	0.902	1.361	0.2945	0.1457
An advisor helped me to set academic goals and to create a plan for achieving them	3.52	3.06	0.46	0.902	1.252	0.4216	0.2063
An advisor helped me identify the courses I needed to take during my first semester/quarter	3.55	3.22	0.33	0.975	1.298	0.2875	0.1423

Note: The above items used with permission from The Center for Community College Student Engagement, Survey of *Entering Student Engagement 2010,* The University of Texas at Austin.

On the other hand, as observed in Tables 31, 32 and 33, entering female students experienced higher levels of engagement and reported statistically significant frequencies in the variables: *How often you use Writing, math, or other skills lab* (mean difference = -0.60; *d* = -0.5366), *How often you use Services to students with disabilities* (mean difference = -0.26; *d* = -0.3681), and *How satisfied are you with Student organizations* (mean difference = -0.45; *d* = -0.4415). Entering female students also reported slightly higher mean differences that are important in determining the level of engagement and satisfaction for the student support services.

Table 31

Comparisons between Entering Male and Female Students: Importance of Student Support Services

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How important is academic advising/planning	1.48	1.52	-0.04	0.505	0.505	-0.0792	-0.0396
How important is career counseling	1.70	1.66	0.04	0.462	0.479	0.0850	0.0425
How important is transfer credit assistance	1.70	1.76	-0.06	0.462	0.431	-0.1343	-0.0670
How important is Face-to-face tutoring	1.66	1.58	0.08	0.479	0.499	0.1636	0.0815
How important are Writing, math, or other skills labs	1.43	1.34	0.09	0.501	0.479	0.1836	0.0914
How important is the Computer lab	1.16	1.08	0.08	0.370	0.274	0.2457	0.1219
How important are Student organizations	1.59	1.66	-0.07	0.497	0.479	-0.1434	-0.0715
How important are Services to students with disabilities	1.68	1.80	-0.12	0.471	0.404	-0.2735	-0.1355

Note: The above items used with permission from The Center for Community College Student Engagement, Survey of *Entering Student Engagement 2010,* The University of Texas at Austin.

Table 32

Comparisons between Entering Male and Female Students: Frequency of Student Support Services Usage

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How often you use academic advising/planning	1.66	1.72	-0.06	0.914	0.882	-0.0668	-0.0334
How often you use career counseling	1.50	1.64	-0.14	0.849	0.942	-0.1561	-0.0778
How often you use transfer credit assistance	1.43	1.54	-0.11	0.950	0.862	-0.1213	-0.0605
How often you use Face-to-face tutoring	1.43	1.58	-0.15	0.789	1.012	-0.1653	-0.0824
How often you use Writing, math, or other skills lab	2.02	2.62	-0.60	1.131	1.105	-0.5366	-0.2592
How often you use Computer lab	3.14	3.04	0.10	1.091	1.068	0.0926	0.0463
How often you use Student organizations	1.57	1.82	-0.25	1.021	1.155	-0.2569	-0.1274
How often you use Services to students with disabilities	1.18	1.44	-0.26	0.582	0.812	-0.3681	-0.1810

Note: The above items used with permission from The Center for Community College Student Engagement, Survey of *Entering Student Engagement 2010,* The University of Texas at Austin.

Table 33

Comparisons between Entering Male and Female Students: Student Satisfaction of Student Support Services

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How satisfied: Academic advising/plan	2.23	2.12	0.11	1.159	1.118	0.0966	0.0482
How satisfied: Career counseling	1.84	2.06	-0.22	1.098	1.018	-0.2078	-0.1033
How satisfied: Job placement assistance	1.75	2.04	-0.29	0.991	0.968	-0.2960	-0.1464
How satisfied: Transfer credit assistance	1.73	1.86	-0.13	1.065	0.926	-0.1303	-0.0650
How satisfied: Services to students with disabilities	2.36	2.72	-0.36	1.163	1.107	-0.3171	-0.1566
How satisfied: Peer or other tutoring	3.05	3.16	-0.11	0.914	1.057	-0.1113	-0.0556
How satisfied: Writing, math, or other skills lab	1.75	2.20	-0.45	0.967	1.069	-0.4415	-0.2156
How satisfied: Student organizations	1.75	1.86	-0.11	0.967	0.904	-0.1175	-0.0587

Note: The above items used with permission from The Center for Community College Student Engagement, Survey of *Entering Student Engagement 2010,* The University of Texas at Austin.

Also, though not statistically significant Tables 31, 32 and 33 show that entering female students reported higher frequencies in *How important are Services to students with disabilities* (mean difference = -0.12; *d* = -0.2735), *How often you use Student organizations* (mean difference = -0.25; *d* = -0.2569), *How satisfied are you with career counseling* (mean difference = -0.22; *d* = -0.2078), *How satisfied are you with transfer credit assistance* (mean difference = -0.29; *d* = -0.2960), *How satisfied are you with Writing, math, or other skills lab* (mean difference = -0.36; *d* = -0.3171).

Returning male and female students. Among the returning students, when compared to male students, female students reported statistically significant higher frequencies in four variables out of the total 27 variables as shown in Tables 34, 35, 36 and 37. As observed in Table 34, when asked how important is *academic advising/planning*, *career counseling and skills lab*, female students reported higher frequencies (mean difference = -0.34; d = -0.6078) and (mean difference = -0.40; d = -0.6528), (mean difference = -0.24; d = -0.4045), respectively.

Table 34

Comparisons between Returning Male and Female Students: Importance of Student Support Services

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How important is Academic advising/plan	2.39	2.73	-0.34	0.579	0.539	-0.6078	-0.2908
How important is Career counseling	2.27	2.67	-0.40	0.694	0.519	-0.6528	-0.3103
How important is Job placement assistance	2.18	2.43	-0.25	0.786	0.728	-0.3300	-0.1628
How important is Transfer credit assistance	2.23	2.33	-0.10	0.711	0.707	-0.1410	-0.0703
How important is Services to students with disabilities	2.20	2.36	-0.16	0.701	0.773	-0.2168	-0.1079
How important is Peer or other tutoring	2.18	2.38	-0.20	0.691	0.614	-0.3060	-0.1512
How important is Writing, math, or other skills lab	2.43	2.67	-0.24	0.625	0.560	-0.4045	-0.1982
How important is Student organizations	2.25	2.30	-0.05	0.686	0.756	-0.0693	-0.0346

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Also, Table 35 shows returning female students reported statistically higher frequencies in two other important variables *How often did you use Writing, math, or other skills lab* (mean difference = -0.52; *d* = -0.6142) and *How often did you use Student organizations* (mean difference = -0.30; *d* = -0.3601).

Tables 34 and 35 indicate that returning male students reported higher engagement levels in three variables *How often did you use Services to students with disabilities* (mean difference = 0.34; *d* = 0.2945), *How satisfied you were with Transfer credit assistance* (mean difference = 0.34; *d* = 0.2945), *How satisfied you were with Services to students with disabilities* (mean difference = 0.34; *d* = 0.2945). Though statistically not significant, female students indicated that they are more satisfied with the *Writing, math, or other skills lab* (mean difference = -0.28; *d* = -0.3140).

There were also a few variables that reported not so statistically significant frequencies but they are important to mention. When asked how important are the student support services are, female students reported higher frequencies in *Job placement assistance* (mean difference = -0.25; *d* = -0.3300) and *Peer or other tutoring* (mean difference = -0.20; *d* = -0.3060). Similarly, female students reported that *the college provided the support needed to help them succeed* (mean difference = -0.19; *d* = -0.2139) than male students.

Although female students indicated that academic advising/planning is important, it appears that male students used the services more than their counterparts. As seen in Table 34, returning male students reported slightly higher frequencies in *How often did you use Academic advising/planning* (mean difference = 0.29; *d* = 0.3109).

Table 35

Comparisons between Returning Male and Female Students: Frequency of Student Support Services Usage

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How often did you use Academic advising/plan	2.84	2.55	0.29	0.914	0.951	0.3109	0.1536
How often did you use Career counseling	2.41	2.51	-0.10	0.948	0.968	-0.1044	-0.0521
How often did you use Job placement assistance	2.14	2.20	-0.06	1.025	0.878	-0.0629	-0.0314
How often did you use Transfer credit assistance	2.25	2.26	-0.01	1.081	1.063	-0.0093	-0.0047
How often did you use Services to students with disabilities	2.50	2.11	0.39	0.902	1.005	0.4084	0.2001
How often did you use Peer or other tutoring	2.50	2.60	-0.10	0.902	0.863	-0.1133	-0.0566
How often did you use Writing, math, or other skills lab	2.68	3.20	-0.52	0.934	0.739	-0.6142	-0.2936
How often did you use Student organizations	2.68	2.98	-0.30	0.883	0.780	-0.3601	-0.1772

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010*, The University of Texas at Austin.

Table 36

Comparisons between Returning Male and Female Students: Student Satisfaction of Student Support Services

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How satisfied: Academic advising/plan	2.70	2.60	-0.10	0.878	1.095	0.1008	0.0503
How satisfied: Career counseling	2.59	2.76	-0.17	0.996	0.822	-0.1862	-0.0927
How satisfied: Job placement assistance	2.32	2.47	-0.15	0.983	1.014	-0.1502	-0.0749
How satisfied: Transfer credit assistance	2.55	2.09	0.46	0.975	1.071	0.4492	0.2191
How satisfied: Services to students with disabilities	2.50	2.14	0.36	1.067	0.979	0.3516	0.1731
How satisfied: Peer or other tutoring	2.45	2.67	-0.22	1.066	0.977	-0.2152	-0.1070
How satisfied: Writing, math, or other skills lab	2.86	3.14	-0.28	0.878	0.905	-0.3140	-0.1551
How satisfied: Student organizations	2.66	2.60	0.06	0.987	0.889	0.0639	0.0319

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010*, The University of Texas at Austin.

Though not statistically significant, as observed in Table 37, male students also reported higher frequencies in *Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)* (mean difference = 0.48; $d = 0.3290$).

Table 37

Comparisons between Returning Male and Female Students: Usefulness of Academic Advising

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)	3.20	2.72	0.48	1.488	1.425	0.3290	0.1625
Providing the support you need to help you succeed at this college	3.16	3.22	-0.06	0.713	0.941	-0.0719	-0.0359
Helping you cope with your non-academic responsibilities (work, family, etc.)	2.50	2.69	-0.19	0.902	0.874	-0.2139	-0.1064

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Chapter Summary

The purpose of this study was to explore the differences in experiences, perceptions, and expectations of entering and returning students at the Community College of Qatar by their levels of engagements in the first three to six weeks at the college. Chapter four described the in-depth two-phased method that was used to report findings from the statistical analysis segment of the research study. The researcher was able to evaluate student engagement levels as well as the differences in experiences of male and female students in the first three to six weeks at the college from the SENSE and CCSSE data that was collected. The final chapter of this study will present the findings and make recommendations for future research.

Chapter Five: Conclusion and Recommendations

Introduction

This chapter provides a brief summary of the study and outlines the major findings on the differences in experience, perception, expectation and engagement levels of entering male versus entering female students and returning male versus returning female students for each of the six research questions based on the literature review and the statistical analyses reported in the previous chapters. Chapter five also presents the implications of the findings for the Community College of Qatar as well as recommendations for future studies.

Study Summary

According to Tinto (1975, 1993), a vital condition fostering student commitment to an institution is academic and social integration acquired through active engagement and development of friendships on campus. By examining the differences in entering and returning male and female student experiences, perceptions, expectations and engagement levels through their first six weeks into the semester, this study sought to look for those institutional practices that promote social and academic integration at post-secondary institutions.

The researcher examined the engagement levels of entering and returning male and female students by utilizing the Survey of Entering Student Engagement (SENSE) and the Community College Survey of Student Engagement (CCSSE) instruments and variables that represent experiences, perceptions and expectations of students with respect to the Community College of Qatar.

Entering male and female students key findings.

Summary of Engagement Levels. To address the differences in experience, perception, expectation as well as engagement levels of entering male and female students, data were analyzed for research questions one, two and three using survey questions by the following five constructs from the Survey of Entering Student Engagement:

- Engaged Learning
- Early Connections
- Clear Academic Plan and Pathway
- Academic and Social Support Network
- Effective Track to College Readiness

As disclosed in Tables 38 through 41, out of the 56 questions on entering student engagement, female students reported higher levels of engagement in 23 questions or 41% of the total number of questions than entering male students. Table 38 shows female students reported statistically significant higher engagement levels in 13 variables than entering male students. Also, though statistically not as significant, entering female students reported slightly higher engagement levels in 10 additional variables than entering male students as shown in Table 39.

Table 38

Entering Student Engagement Levels Summary: Variables Showing Female Students More Engaged than Male Students

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
All instructors had activities to introduce students to one another	3.52	3.96	-0.44	1.067	0.880	-0.4499	-0.2195
All instructors clearly explained academic and student support services available at this college	3.39	3.76	-0.37	1.061	0.981	-0.3621	-0.1782
Asked questions in class or contributed to class discussions	3.20	3.52	-0.32	0.765	0.614	-0.4613	-0.2248
Prepared at least two drafts of a paper or assignment before turning it in	2.45	2.86	-0.41	0.926	0.926	-0.4428	-0.2161
Worked with other students on a project or assignment during class	2.36	3.20	-0.84	1.183	0.904	-0.7979	-0.3705
Worked with classmates outside of class on class projects or assignments	1.52	2.30	-0.78	0.849	1.11	-0.7889	-0.3670
Participated in a required study group outside of class	1.32	1.74	-0.42	0.674	1.065	-0.4713	-0.2294
Participated in a student-initiated (not required) study group outside of class	1.23	1.74	-0.51	0.605	1.006	-0.6144	-0.2937
Used an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with another student about coursework	1.93	2.40	-0.47	1.108	1.309	-0.3876	-0.1902
Discussed an assignment or grade with an instructor	2.16	2.72	-0.56	1.077	1.031	-0.5312	-0.2567

Table 38 (continued)

Entering Student Engagement Levels Summary: Variables Showing Female Students More Engaged than Male Students

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
How often you use Writing, math, or other skills lab	2.02	2.62	-0.60	1.131	1.105	-0.5366	-0.2592
How often you use Services to students with disabilities	1.18	1.44	-0.26	0.582	0.812	-0.3681	-0.1810
How satisfied are you with Student organizations	1.75	2.20	-0.45	0.967	1.069	-0.4415	-0.2156

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010*, The University of Texas at Austin.

Table 39

Entering Student Engagement Levels Summary: Variable s Showing Female Students More Engaged than Male Students but not Statistically Significant

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
The very first time I came to this college I felt welcome	4.23	4.40	-0.17	0.831	0.728	-0.2176	-0.1082
How satisfied are you with career counseling	1.84	2.06	-0.22	1.098	1.018	-0.2078	-0.1033
I learned the name of at least one other student in most of my classes	4.14	4.36	-0.22	1.069	1.025	-0.2101	-0.1045
How satisfied are you with transfer credit assistance	1.75	2.04	-0.29	0.991	0.968	-0.2960	-0.1464
I learned the name of at least one other student in most of my classes	4.14	4.36	-0.22	1.069	1.025	-0.2101	-0.1045
How often you use Student organizations	1.57	1.82	-0.25	1.021	1.155	-0.2569	-0.1274
With a class, or through another experience at this college: I learned to understand my academic strengths and weaknesses	3.50	3.72	-0.22	1.151	1.011	-0.2031	-0.1010
Participated in supplemental instruction (extra class sessions with an instructor tutor, or experienced student)	1.57	1.76	-0.19	0.900	0.981	-0.2018	-0.1004
How satisfied are you with Writing, math, or other skills lab	2.36	2.72	-0.36	1.163	1.107	-0.3171	-0.1566
How important are Services to students with disabilities	1.68	1.80	-0.12	0.471	0.404	-0.2735	-0.1355

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010,* The University of Texas at Austin.

On the other hand, entering male students reported higher engagement levels in nine variables (16%) out the 56 variables of which five variables were statistically significant while four variables showed they were more engaged than female students but not significantly different as shown in Tables 40 and 41.

Table 40

Entering Student Engagement Levels Summary: Variables Showing Male Students More Engaged than Female Students

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
All the courses I needed to take during my first semester/quarter were available at times convenient for me	3.70	3.20	0.50	0.765	1.278	0.4747	0.2310
I was able to meet with an academic advisor at times convenient for me	3.70	3.30	0.40	0.878	1.216	0.3772	0.1853
An advisor helped me to set academic goals and to create a plan for achieving them	3.52	3.06	0.46	0.902	1.252	0.4216	0.2063
A college staff member talked with me about my commitments outside of school (work, children, dependents, etc.) to help me figure out the number of courses to take	3.18	2.74	0.44	1.105	1.367	0.3540	0.1743
Used an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with an instructor about coursework	2.70	2.20	0.50	1.173	1.107	0.4384	0.2141

Note: The above items used with permission from The Center for Community College Student Engagement, ***Survey of Entering Student Engagement 2010***, The University of Texas at Austin.

Table 41

Entering Student Engagement Levels Summary: Variables Showing Male Students More Engaged than Female Students but not Statistically Significant

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
An advisor helped me to select a course of study, program, or major	3.50	3.16	0.34	0.902	1.361	0.2945	0.1457
An advisor helped me identify the courses I needed to take during my first semester/quarter	3.55	3.22	0.33	0.975	1.298	0.2875	0.1423
How important is the Computer lab	1.16	1.08	0.08	0.370	0.274	0.2457	0.1219
The instructors at this college want me to succeed	4.43	4.26	0.17	0.728	0.965	0.1984	0.0987

Note: The above items used with permission from The Center for Community College Student Engagement, *Survey of Entering Student Engagement 2010*, The University of Texas at Austin.

Research question 1. What are the differences in experiences and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered questions number one by analyzing the data for four SENSE constructs by survey questions that are related to student experience at the college.

Key findings by construct. Findings from research question one that examined the differences in experiences and engagement levels of entering male students versus entering female students showed that entering female students reported statistically significant differences in most of the engagement variables than entering male students particularly in the constructs Early Connections, Academic and Social Support Network and Engaged Learning, while entering male students reported significantly higher levels

of engagement in the Clear Academic Plan and Pathway construct.

Clear academic plan and pathway. In this construct, post-hoc analysis revealed entering male students were statistically more engaged than entering female students. Entering male students reported statistically significant higher engagement levels relevant to All the courses I needed to take during my first semester/quarter were available at times convenient for me, I was able to meet with an academic advisor at times convenient for me, An advisor helped me to set academic goals and to create a plan for achieving them, A college staff member talked with me about my commitments outside of school to help me figure out the number of courses to take. According to the responses, male students overwhelmingly indicated that they were provided with opportunities to set academic goals as well as a clear path to achieving them by college staff members.

Early connections. Although, there were no statistically significant differences found in engagement levels between entering male and female students in the Early Connections benchmark, female students reported slightly higher engagement levels than entering male students. Entering female students indicated that they felt more connected with someone at the college in their first three weeks of their first semester at the college. Also, though not significant, female students felt more welcome at the college and were able to learn names of other students faster than entering male students.

Academic and social support network. Results from this benchmark showed that entering female students received better academic and social support from advisors, faculty and other staff members at the college than entering male students. Female students reported that instructors and staff members provided them with information about student support services critical to their success at the college and were more satisfied with career counseling and transfer credit assistance than entering male students.

Engaged learning. In general, entering female students reported statistically higher engagement levels than entering male students in most of the variables in this construct which demonstrated that faculty members that taught entering female students designed courses that were more effective in providing a better learning experience than those that taught entering male students. In addition, ad-hoc results showed entering female students reported statistically higher levels of engagement in the classroom as they tended to participate more in class discussions, prepared and turned in their assignments, collaborated and worked with other students during class and outside of class and made better use of the services available at the college such as writing labs and services with disabilities. Additionally, entering female students preferred to discuss assignments and grades with their instructors in person while male students preferred using an electronic tool such as email, phone or text messaging. It is also interesting to note that entering female students reported that they often used student organizations more than entering male students even though entering male students indicated that they participated more in student activities than female students.

Research question 2. What are the differences in perceptions and engagement levels between male and female students during the first three to six weeks at the college?

This question was designed to explore the differences in perceptions and engagement levels of entering male students versus entering female students by examining the data for four SENSE benchmarks by survey questions that are related to student perception three weeks into the college.

Early connections. While no statistically significant difference was found in the Early Connections construct, entering female reported slightly higher engagement levels than entering male students. According to the results for this construct, entering female students were more likely to perceive that their instructors want them to succeed at the college.

Academic and social support network. No statistically significant difference was reported in the Academic and Social Support Network benchmark as the difference in perception and engagement levels among entering male and entering female students was very small and insignificant.

Engaged learning. As reported in research question number one on the Engaged Learning construct, entering female students reported significantly higher engagement levels and indicated that they are more satisfied with some student support services such as student organizations and skills lab.

Effective track to college readiness. Findings in this section of the Effective Track to College Readiness construct suggest that entering female students were slightly more engaged and believed the experience at the college helped them understand their academic strengths and weaknesses.

Research question 3. What are the differences in expectations and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered questions number three by examining the data for two SENSE benchmarks by survey questions that are related to student expectations of support services provided by the college.

Academic and social support network construct. In this Academic and Social Support Network construct, the results showed that both entering male and female students had high expectations of the support services provided by the college. Although no statistically difference was found, both the two groups indicated that services such as academic advising, career counseling and transfer credit assistance are important to them.

Engaged learning construct. Results from this construct revealed slightly higher engagement levels existed among entering female students which indicated that female students expected the college to provide better services to students with disabilities and the use of the computer lab is more important to them than to entering male students.

Research question 4. How useful were the student support services in assisting students to understand the community college model?

By looking at the frequency of usage of student support services, research question four was designed to determine which student group was more aware of the student support services and utilized the services in higher proportions which helped in understanding the mission and purpose of the Community College of Qatar as well as the importance of social and academic integration to their success at the college.

Study results suggested that entering female students took advantage of student support services more than entering male students as they experienced higher levels of engagement and reported statistically significant frequencies in the variables *How often you use Writing, math, or other skills lab*, *How often you use Services to students with disabilities.* Also, though not statistically significant entering female students reported slightly higher levels of engagement in *How important are Services to students with disabilities* and *How often you use Student organizations*.

Research question 5. How useful were the student support services in assisting students to know how to utilize the wide variety of on campus resources and services?

By looking at the level of satisfaction of student support services, this question was designed to determine which student group utilized on campus services and resources in higher proportions.

Entering female students experienced higher levels of engagement and reported statistically significant frequencies in *How satisfied are you with Student organizations*. Additionally, entering female students reported slightly higher mean differences that are

critical in determining the level of satisfaction of student support services as they reported slightly higher frequencies than entering male students in *How satisfied are you with career counseling*, *How satisfied are you with transfer credit assistance*, *How satisfied are you with Writing, math, or other skills lab*.

Research question 6. How useful were the student support services in assisting students to understand their academic and career pathways?

Research question six was designed to determine which student group was more aware of the student support services and utilized the services in higher proportions which helped them develop a road map to achieve their academic and career goals.

Results from the study suggest that entering male students reported higher engagement levels in the effectiveness of student support services implying that advisors provided entering male students with a career and academic road map within the first three to six weeks into the semester. Entering male students reported statistically significant higher frequencies than entering female students in *An advisor helped me to set academic goals and to create a plan for achieving them*. Though not statistically significant, it is also important to note that entering male students reported higher frequencies in *An advisor helped me to select a course of study, program, or major and An advisor helped me identify the courses I needed to take during my first semester/quarter.*

Returning Students

Returning male and female students key findings.

Summary of engagement levels. To address the differences in experience, perception, expectation as well as engagement levels of returning male and female students, data were analyzed for research questions one, two and three using survey questions by the following four constructs from the Community College Survey of Student Engagement:

- Active and Collaborative Learning
- Student Effort
- Support for Learners
- Student-Faculty Interaction

As shown in Tables 42 through 45, out of the 53 questions on returning student engagement, female students reported higher levels of engagement in 18 questions or 34% of the total number of questions than returning male students. Table 42 shows that returning female students reported significantly higher frequency levels in 10 questions than returning male students.

Table 42

Returning Student Engagement Levels Summary: Variables Showing Female Students More Engaged than Male Students

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Made a class presentation	2.68	3.12	-0.44	0.800	0.887	-0.5209	-0.2521
Worked with classmates outside of class to prepare class assignments	2.41	2.76	-0.35	0.871	0.885	-0.3986	-0.1955
Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	2.34	2.73	-0.39	0.745	0.940	-0.4598	-0.2241
How often did you use Writing, math, or other skills lab	2.68	3.20	-0.52	0.934	0.739	-0.6142	-0.2936
How often did you use Computer lab	3.27	3.52	-0.25	0.727	0.691	-0.3525	-0.1736
How often did you use Student organizations	2.68	2.98	-0.30	0.883	0.780	-0.3601	-0.1772
Using computers in academic work	2.82	3.28	-0.46	0.971	0.834	-0.5082	-0.2463
How important is Academic advising/planning	2.39	2.73	-0.34	0.579	0.539	-0.6078	-0.2908
How important is Career counseling	2.27	2.67	-0.40	0.694	0.519	-0.6528	-0.3103
How important is Writing, math, or other skills lab	2.43	2.67	-0.24	0.625	0.560	-0.4045	-0.1982

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Also, though statistically not as significant, returning female students reported slightly higher engagement levels in 8 additional variables than returning male students as illustrated on Table 43.

Table 43

Returning Student Engagement Levels Summary: Variables Showing Female Students More Engaged than Male Students but not Statistically Significant

Variable	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Worked with other students on projects during class	2.63	2.90	-0.27	0.846	0.831	-0.3220	-0.1589
Prepared two or more drafts of a paper or assignment before turning it in	2.48	2.73	-0.25	0.731	0.961	-0.2928	-0.1449
How satisfied you were with Peer or other tutoring	2.45	2.67	-0.22	1.066	0.977	-0.2152	-0.1070
How satisfied you were with Writing, math, or other skills lab	2.86	3.14	-0.28	0.878	0.905	-0.3140	-0.1551
How satisfied you were with Computer lab	3.00	3.20	-0.20	0.807	0.859	-0.2400	-0.1191
Helping you cope with your non-academic responsibilities (work, family, etc.)	2.50	2.69	-0.19	0.902	0.874	-0.2139	-0.1064
How important is Job placement assistance	2.18	2.43	-0.25	0.786	0.728	-0.3300	-0.1628
How important is Peer or other tutoring	2.18	2.38	-0.20	0.691	0.614	-0.3060	-0.1512

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

As illustrated in Table 44, returning male students reported higher engagement levels in thirteen questions (24.5%) out of the total 53 variables. Out of the thirteen variables, returning male students reported slightly higher engagement levels than returning female students in three questions as shown in Table 45.

Table 44

Returning Student Engagement Levels Summary: Variables Showing Male Students More Engaged than Female Students

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Used email to communicate with an instructor	2.74	2.33	0.41	0.978	1.033	0.4076	0.1997
Received prompt feedback (written or oral) from instructors on your performance	2.66	2.12	0.54	0.834	0.931	0.6110	0.2922
Worked with instructors on activities other than coursework	2.43	1.78	0.65	0.873	0.730	0.8078	0.3745
Working for pay	3.11	1.79	1.32	1.742	1.160	0.8920	0.4073
Providing care for dependents living with you (parents, children, spouse, etc.)	3.52	2.83	0.69	1.422	1.434	0.4832	0.2348
Commuting to and from classes	3.59	3.06	0.53	1.352	1.435	0.3802	0.1867
How often did you use Services to students with disabilities	2.50	2.11	0.39	0.902	1.005	0.4084	0.2001
How satisfied you were with Transfer credit assistance	2.55	2.09	0.46	0.975	1.071	0.4492	0.2191
How satisfied you were with Services to students with disabilities	2.50	2.14	0.36	1.067	0.979	0.3516	0.1731
Come to class without completing readings or assignments	2.16	1.68	0.48	0.987	0.819	0.5293	0.2558
Skipped class	1.84	1.47	0.37	1.033	0.674	0.4330	0.2116

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Table 45

Returning Student Engagement Levels Summary: Variables Showing Male Students More Engaged than Female Students but not Statistically Significant

Item	Male Mean	Female Mean	Mean Difference	Male Standard Deviation	Female Standard Deviation	Cohen's *d*	Effect Size
Discussed ideas from your readings or classes with instructors outside of class	2.43	2.18	0.25	0.846	0.974	0.2740	0.1358
Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)	3.20	2.72	0.48	1.488	1.425	0.3290	0.1625
How often did you use Academic advising/planning	2.84	2.55	0.29	0.914	0.951	0.3109	0.1536

Note: The above items used with permission from The Center for Community College Student Engagement, *Community College Survey of Student Engagement 2010,* The University of Texas at Austin.

Research question 1. What are the differences in experiences and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered questions number one by analyzing the data for the four CCSSE constructs by survey questions that are related to returning student experience at the college.

Key findings by construct. Findings from research question one that examined the differences in experiences and engagement levels of returning male students versus returning female students showed that the engagement levels varied by benchmark but returning male students reported higher frequencies in general than returning female students. For instance, returning female students reported statistically significant differences in the Active and Collaborating Learning construct while returning male

students reported higher engagement levels in the Student-Faculty Interaction and Support for Learners constructs. Both the two groups reported approximately identical engagement levels in the Student Effort benchmark.

Active and collaborating learning construct. In the Active and Collaborating Learning construct, returning female students reported significant differences than returning male students in four variables, *Made a class presentation, Worked with classmates outside of class to prepare class assignments, Discussed ideas from your readings or classes with others outside of class and Worked with other students on projects during class.* Though not statistically significant, returning male students reported higher engagement levels in the variables *Discussed ideas from your readings or classes with instructors outside of class* and *How often you asked questions in class or contributed to class discussions.* According to the findings, returning male students tended to be more actively involved in their learning process through collaboration with other students and faculty in and outside of the classroom.

Student–faculty interaction construct. The Student-Faculty Interaction construct yielded three statistically significant differences in engagement levels reported by returning male students indicating that they interacted with their instructors in and outside of class during the semester more than returning female students. Returning male students reported higher frequencies than returning female students in the *variables Used email to communicate with an instructor, Received prompt feedback (written or oral) from instructors on your performance and Worked with instructors on activities other than coursework.*

Student effort construct. Although returning male students reported higher engagement levels demonstrating they put in more effort in their education, the activities reported in the survey may have actually impeded their learning process. For instance, returning male students reported statistically significant higher frequencies than returning female students in the variables *Come to class without completing readings or assignments, Skipped class, Working for pay, Providing care for dependents living with you,* and *Commuting to and from classes.* All these measures may have prevented returning male students from actively interacting with other students and faculty at the college.

In the same construct, three statistically significant differences were found where returning female students had higher frequencies than returning male students in the variables *How often did you use Writing, math, or other skills lab*, *How often did you use Computer lab*, *How often did you use Student organizations*. These measures implied that returning female students exerted more effort in their education by spending more time at the college and utilizing college services. Also, though not statistically significant returning female students reported a higher frequency in the variable *Prepared two or more drafts of a paper or assignment before turning it in*, while returning male students reported a higher frequency in the variable *Participating in college-sponsored activities*.

Support for learners construct. Returning male students reported higher engagement levels in the variable *How often did you use Services to students with disabilities*. Interestingly, returning male students also reported a higher frequency than female students in the variable *How often did you use Academic advising/planning* signifying that they took advantage of services provided by student support staff.

Research question 2. What are the differences in perceptions and engagement levels between male and female students during the first three to six weeks at the college?

This question was designed to explore the differences in perceptions and engagement levels of returning male students versus returning female students by examining the data for two CCSSE benchmarks by survey questions that are related to student perception three weeks into the college.

Student effort construct. In this Student Effort construct, post-hoc analysis revealed no statistically significant difference reported. However, though not as significant, returning female students reported a slightly higher engagement levels in the variable *How satisfied you were with Writing, math, or other skills lab.*

Support for learners construct. Findings in this section of the Support for Learners construct suggest that returning male students reported statistically higher frequencies than returning female students in the variables *How satisfied you were with Transfer credit assistance* and *How satisfied you were with Services to students with disabilities.* On the other hand, returning female students reported a higher frequency in the variable *Using computers in academic work.*

Research question 3. What are the differences in expectations and engagement levels between male and female students during the first three to six weeks at the college?

The researcher answered questions number three by examining the data for two CCSSE benchmarks by survey questions that express returning student expectations of support services provided by the college.

Student effort construct. In this Student Effort benchmark, returning female students reported statistically higher frequencies than returning male students in the variable *How important is Writing, math, or other skills lab.* Such findings imply that students persist when they utilize support services provided by the college.

Support for Learners. In comparison with returning male students, returning female students reported statistically higher engagement levels in the Support for Learners benchmark. Returning female students reported statistically higher frequencies than returning male students in the variables *How important is Academic advising/planning* and How important is Career counseling. Also, though not as significant, returning female students reported higher frequencies in the *variable How important is Job placement assistance* suggesting that they took advantage of services that may affect their learning outcomes and helped with retention.

Research question 4. How useful were the student support services in assisting students to understand the community college model?

By looking at the frequency of usage of student support services, research question four was designed to determine which student group was more aware of the

student support services and utilized the services in higher proportions which helped in understanding the mission and purpose of the Community College of Qatar as well as the importance of social and academic integration to their success at the college.

Results from this section of the study indicate that returning female students utilized student support services at higher rates than returning male students. Returning female students reported higher engagement levels in the variables *How important are the following services: Academic advising/plan, career counseling, job placement assistance, services to students with disabilities, peer and other tutoring, writing and skills lab*.

Also, returning female students reported statistically higher frequencies in two other important variables *How often did you use Writing, math, or other skills lab* and *How often did you use Student organizations*. On the other hand, returning male students reported higher engagement levels in variables *How often did you use Academic Advising/planning and How often did you use Services to students with disabilities.*

Research question 5. How useful were the student support services in assisting students to know how to utilize the wide variety of on campus resources and services?

By looking at the level of satisfaction of student support services, this question was designed to determine which student group utilized on campus services and resources in higher proportions.

Results for this study suggest that both student groups were satisfied with student support services provided by the college. Returning male students reported higher levels or engagement in the variables *How satisfied you were with Transfer credit assistance*

and *How satisfied you were with Services to students with disabilities* while returning female students reported slightly higher frequencies in the variables *How satisfied you were with Writing, math, or other skills lab* and *How satisfied you were with Peer or other tutoring.*

Research question 6. How useful were the student support services in assisting students to understand their academic and career pathways?

Research question six was designed to determine which student group was more aware of the student support services and utilized the services in higher proportions which helped in developing a road map to achieve their academic and career goals.

Though statistically not significant, returning female students reported higher engagement levels in one variable for this section suggesting that the college provided adequate support to help them cope with non-academic responsibilities such as family and work.

Implications and Recommendations for the Community College of Qatar

By exploring the differences in engagement levels and usefulness of student support services, the findings from this research study contributes significant information to the student retention, persistence and motivation literature of male and female students in Qatar. The information from this research study will help inform the Community College of Qatar and post-secondary education institutions of the engagement practices and intervention strategies that encourage social and academic integration thus promoting student success, persistence and retention.

As previously explained in the literature review, a number of studies in the United States explore retention and persistence problems within community colleges and universities. Researchers contend some of the factors that influence persistence and retention at community college are social, academic, personal and institutional integration (Jordan, 2008). In addition to these factors, studies that specifically focused on reasons for community college students dropping out suggest that institutions are more likely to have higher retention and persistence rates if they strongly emphasize on the student's early experience at the college. Colleges that develop student support mechanisms that provide entering students with the tools to focus on academic preparation, student motivation and improved study skills are more likely to do well in their student retention efforts (Belcheir, 2004).

In addition, findings from this study suggest that external factors such as work, commuting, and family responsibilities may play a significant role in the student's decision to drop out. According to Dabney-Smith (2009), the vast majority of students that decide to drop out do so in the first four semesters at the college. It is therefore important that community colleges focus on the front door experience of their entering students and develop intervention strategies that would prevent students from leaving college. The following findings and recommendations are established based on literature review and results of this research study to assist the Community College of Qatar and institutions of higher learning in developing first-year-experience programs that will improve their persistence and retention efforts.

Recommendation 1.

Review and revise the New Student Orientation program. Student orientation programs are important at introducing entering students to the support services and acquainting them with the resources available at the college. A key objective of the program is to inform students of their responsibilities as students and integrate them into the college culture early in their college experience (Smith, 2010). Results from this study show that entering and returning female students experienced higher levels of engagement than entering and returning male students suggesting that female students utilized student support services at higher rates than male students. In addition, although all students reported that they were satisfied with the support services provided at the college, it is not known if they were aware of the services prior to the first day of class or if they ever utilized the services during their first three weeks at the college.

Thus, to ensure it is meeting the learner's needs and fulfilling its objectives, the new student orientation program that currently exists at CCQ needs to be evaluated and improved. Because most students that enroll at CCQ are first time and first-generation college students, it is expected that they will be apprehensive about the prospect of starting college that is taught in a second language. Hence, due to language barriers, it is important that advisors and counselors that conduct the orientation sessions in English speak at a pace that is appropriate for each level to ensure students comprehend the information that they will be receiving. Also, to alleviate student anxieties and help build a solid foundation for success, the program should address the role of the Community College of Qatar in relation to their academic goals and what it will take for them to

achieve those goals. In addition, each session should be at least two to three days long instead of only four hours that is currently the case at CCQ. This will allow students to be more engaged in the process by getting to know the other students, faculty and staff as well as college resources available for them. By dedicating more time to the program, students will have a chance to ask questions about college policies, procedures, programs of study and what courses to take each semester. To avoid potential hurdles, more emphasis must be placed on the college's Student Code of Conduct particularly on attendance and grading policies as well as classroom expectations. Additionally, key college personnel such as the college dean, associate deans, librarians, student activities coordinator, student ambassadors and student government president, should be invited to the sessions to meet and greet the new students and share with them key information about their respective areas.

Recommendation 2.

Require students to meet with advisors and counselors regularly. Research suggest that community colleges can improve persistence and retention if they encourage students to meet with advisors early during the first semester they are enrolled in order to set academic and career goals as well as develop a plan for accomplishing them (Center for Community College Student Engagement, 2010c). Results from this study suggest that both entering and returning students did not spend enough time with advisors to discuss course selection and career plans. Only 23% of returning male students and 12% returning female students that participated in the study indicated that they often used academic advising/planning. Also, it was reported that the same two

groups rarely used career counseling as 50% of returning male students and 33% of returning female students indicated that they never used the service.

As for entering students, less than half (41%) of entering male students and 44% of entering female students indicated that an advisor helped them select a course of study or major. Furthermore, 47% of entering male and 44% of entering female students indicated that they spent some time with an advisor to set academic goals and created a plan to achieve them. Advisors should develop a "support for learners outreach plan" to ensure all students at CCQ receive proper counseling and advising.

Recommendation 3.

Develop an early alert program. Interestingly but not surprisingly, it is reported in the findings that a significant number of returning male students (50%) that participated in the study often skipped class during the school year. In contrast, only 6% of returning female students indicated that they skipped class during the school year. This could be because Muslim men are the pillars of support for their homes responsible for guarding, protecting and providing for their families. Hence, results from this study showed 43% of returning male students indicated that they work and 41% reported that they care for dependents at least 20 hours a week compared to returning female students at 4% and 20%, respectively. These are serious findings that could potentially be creating retention problems of male students at CCQ. To address this problem, faculty and counselors must develop intervention strategies that are designed to improve student retention such as an early alert program. As explained in chapter two, an early alert program will provide students with an environment that is conducive to learning and

assist those that are experiencing academic and social difficulties. It will help students meet their educational goals thus preventing them from failing and dropping out.

Recommendation 4.

Develop programs and strategies that promote student involvement on campus. Numerous studies suggest that students that are actively involved on campus by participating in campus activities and interacting with other students and faculty are more likely to persist and develop academically and personally (Astin, 1984; Tinto, 2000b). Most students allude to a strong relationship they have established with other students, advisors or faculty at the college as a main reason they chose to not drop out of college (Terenzini et al., 1994). Findings from this study suggest that both entering and returning female students were statistically more engaged than their counterparts in college sponsored activities and collaborated more with other students and faculty in and outside of class.

According to the findings, there were more interactions between student-student and student-faculty among entering female students as they reported statistically significant differences in *Worked with other students on a project or assignment during class*, *Worked with classmates outside of class on class projects or assignments*), *Participated in a required study group outside of class*, *Participated in a student-initiated (not required) study group outside of class*. Similarly, returning female students reported higher levels of engagement in *Worked with classmates outside of class to prepare class assignments* and *Discussed ideas from your readings or classes with others outside of class.* Therefore, it is critical that the college develop programs that

actively promote student-student and student-faculty interactions particularly among the male students. Faculty should encourage students to create new student clubs and serve as mentors and advisors for the clubs. Moreover, the college should develop a peer-mentoring program where returning students will serve as mentors to new students. The program will assist new students in adjusting to their new settings by providing them with opportunities to interact and connect with one another as well as develop long term relationships.

Recommendation 5.

Develop and implement a longitudinal system that tracks student success and retention. The Community College of Qatar plays a vital role in Qatari society by providing thousands of adults an opportunity to achieve their academic and personal goals and preparing them for a competitive and progressive economy. However, challenges that are familiar to community college students such as poor academic performance, work and family responsibilities could prevent CCQ students from achieving their goals. Thus, CCQ must establish a longitudinal tracking system that consistently monitors student performance, persistence and retention to ensure access leads to success. The development of a student success tracking system will assist CCQ in developing a culture of evidence that will inform the college's Board of Trustees of students' progress thus facilitating better decision making in their attempts to develop strategies that will promote student success and retention.

Recommendations for Further Research

This study was designed to explore the impact of student engagement on student persistence and retention at the Community College of Qatar. Study findings can help CCQ and other institutions improve their retention and persistence rates by developing student support programs that promote social and academic integration among entering and returning male and female students. The following recommendations have been offered for further research based on literature review and findings from this study:

1. This study explored the differences in experiences and engagement levels of entering male versus entering female students, and returning male versus returning female students. Future research should explore the differences in engagement levels between entering male versus returning male students and entering female versus returning female students.
2. The findings in this study demonstrate the need to explore the differences in engagement levels and success rates of students that attend full-time during the day and students that work and can only attend part-time in the evenings at CCQ.
3. This study only examined engagement levels of entering and returning male and female students at CCQ. A longitudinal study that looks at the success, persistence, retention and graduation rates of the same students should be explored for further research.
4. Results from this study suggest that female students were more engaged than male students. This could be because female students in Qatar are more

motivated and want to take advantage of the opportunity for a post-secondary education that was previously not available to them. It is recommended that a comparison study of motivation levels between male and female students in Qatar be explored using findings from this research study.

5. Because the sample size of study participants was small the findings do not include information on student age, socioeconomic and marital status. Future studies should include students' age and marital status to see if these variables have any effect on persistence and retention at CCQ.
6. After making the New Student Orientation program mandatory and dedicating more time to the program, future studies should investigate if the program assisted in promoting social and academic integration of male and female students at CCQ and had any influence on persistence and retention.

Conclusion

As the world's second richest country per capita, the State of Qatar embarked upon an ambitious journey of social and economic development in order to secure a prosperous future for all its people. Qatar National Vision 2030, established in 2007, outlines national goals and objectives which include making it one of the most educated as well as economically and socially developed countries in the world. The recent opening of the Community College of Qatar confirms the State of Qatar's strong desires of developing and preparing its citizens to confront and engage in global economic and social challenges.

This research study investigated the differences in experiences and engagement levels of entering and returning male and female students at the Community College of Qatar. The findings from this study provided useful information related to student support services as well as recommended engagement and intervention strategies that promote student success, persistence and retention at CCQ and post-secondary education institutions in the Middle East and the United States. Results from this study suggested that female students were more engaged than entering and returning male students due several factors including their frequent interactions with other students, faculty and staff members as well as their active involvement in on campus activities and exerted more effort in their education by spending more time at the college and utilizing college services. On the contrary, because of work and family obligations, less than 50% of entering and returning male students at CCQ spent time interacting with other students or faculty or participated in any activities on campus. Hence, based upon the findings obtained in this study, it was suggested that intervention programs that promote student retention and strategies that encourage engagement and social interactions between student-student and student-faculty must be developed and implemented to prevent students from dropping out.

Appendix A

Timeline to Conduct

	SENSE	CCSSE
Entering Students	January 30, 2011, 3 weeks into term	
Returning Students		March 27, 2011, 10 weeks into term

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Vita

Abdul Tamimi is an accomplished career administrator and educator with an outstanding track record in assuring student, staff and faculty success. Abdul began his educational journey in the United States at Houston Community College as an international student. Prior to pursuing his doctorate from the University of Texas at Austin, Abdul earned his Bachelor of Science Degree in Health Care Administration from Texas Southern University and Master of Arts Degree in Cross-Cultural Studies from the University of Houston at Clear Lake.

Prior to joining to the Community College of Qatar as the founding Associate Dean of Student Services, Abdul held several positions with the Lone Star College System and the Bilingual Education Institute. He has served as Dean of Educational Programs and Organizational Development, Dean of Instructional & Organizational Development, Dean of New Program Development, Corporate Training & Continuing Education, Manager of Continuing Education, Academic and Financial Aid Advisor and Cultural Orientation Manager. His teaching experiences include instruction in English as a Second Language, Sociology and Anthropology.

Additionally, Abdul has conducted workshops and presented research at local and national conferences on a variety of topics that include Enhancing Student Recruitment, Retention and Success, Effective Customer Service, Leadership Growth and Development and on International Education. Abdul's extensive knowledge of both the instructional and student services aspect of community college operations has made

him an asset and an important resource for community colleges and post-secondary education institutions around the world.

Abdul's serves on several boards that include the National Alliance for Community and Technical Colleges, Houston Forum for Advisors to Internationals, Texas Association of Continuing Education, and the Rotary Club of Cypress-Fairbanks. Abdul has also received a number of awards that include the distinguished 2007 Exemplary Leadership Team Award from the Chair Academy, 2009 LSC-CyFair Unsung Hero Award for Administrators and was a recipient of the 2010 LSC-CyFair Outstanding Continuing Education Administrator Award.